

Speaker 1: Hey, everybody. Welcome back to the Glutenology Health Matrix. We're going to be diving in tonight to Module four, having the right mindset, how to avoid gluten-free whiplash, and some of the most common pitfalls and mistakes people make going on a gluten-free diet. If you haven't watched Modules one through three at this point, it's a really good idea to go back and catch up because a lot of the topics we're going to be discussing in this next module are going to be built on the premise that you understand what we've already talked about, so very, very important. Without further ado, let's dive in.

We're going to be covering why so many gluten-free dieters actually fail to get the results that they're looking for. We're going to be diving into the concept called gluten-free whiplash. We're going to be talking about having the right mindset. What is that right mindset that gluten-free mentality, that warrior mentality? We're going to talk about the mistakes and the common pitfalls that people make when they're first embarking on a gluten-free diet that really hold up their progress. Then we're also going to be talking about some of the non-gluten triggers that might be sabotaging your success.

A little bit of strategy at the end of this video, so stick with me all the way through. Let's talk about why the gluten-free diet as traditionally defined has such poor outcomes. Now, you go back and remember what I taught in Module one and Module two, is we define the true gluten-free diet versus the traditional gluten-free diet.

Just brief refresher, the traditional gluten-free diet is what you get in mainstream media, what you get in the grocery aisle. It's the wheat, the barley, the rye-free processed junk food products that are labeled gluten-free that generally keep people pretty sick. These food items, they're just not designed to keep you healthy, they're designed to be classic gluten-free.

A true gluten-free diet really is when you understand what gluten is and where gluten is found. It's not just found in wheat, barley, and rye, again, if you didn't watch that, I don't want to get too much into those details today, but go back and watch that module. Let's talk about why traditional gluten-free diets fail. This study we've got, I'm going to put it up on the screen for you.

You can see that almost half of the participants in this study stated that they had persistent symptoms despite following on gluten-free diet. This study was just published in 2019, so it's a relatively new study. Again, almost 50% of people on a gluten-free diet continued to have persistent problems. Well, that's a high number. That's a large amount of people still struggling with persistent symptoms.

That's not the only study, look at this one, why are gluten-free diets failing to heal so many patients and this study published in The American Journal of Gastroenterology, they found it more than 30% of patients with celiac disease following a gluten-free diet failed to exhibit recovery of intestinal damage after five years on a gluten-free diet. Here they are following this traditional gluten-free diet for five years, 30%, almost a third of them don't have recovery of their GI tract.

In other words, their guts are still inflamed, they're still malabsorbing, they're still struggling with chronic issues. Again, you can see this is quoted from the study, "New coastal recovery was absent in a substantial portion of adults with celiac disease after treatment with a gluten-free diet." That's a problem. One study showing almost 50% and other studies showing almost a third, then we have this study published in 2009 in the medical research that shows that 8% of the patients in this study recovered from intestinal damage while following a traditional gluten-free diet.

This was a 16-month study. The first study was five years, this is a 16-month study, so over a year, we got people following this traditional gluten-free diet and 92% of them fail to have intestinal recovery. That's more than half, it's more than a third, it's 92%. Only 8% actually had recovery. That to me is a horrible outcome, it's a horrible result, so it ponders the question why?

Why are these individuals who are so diligently trying to follow a gluten-free diet failing to get the outcomes of gastrointestinal villous remission and inflammation remission, what is kind of the missing link? What's going on? Let's talk about that why.

Number one, they're breaking the cardinal rule of nutrition, my cardinal rule of nutrition, but it's not mine, I don't own it, it's just really the common sense rule, which is you cannot achieve health eating food that is not healthy. So no matter how gluten-free the label states something is, if the product is junk food, if the product isn't good for you, it's not going to help you recover the damage that gluten has so demonstrably created in your body.

Number two, highly processed foods are not healthy regardless of whether the label contains or whether the label claims to be gluten-free. Simply put, eating unhealthy foods leads to poor health.

Many over-the-counter packaged foods are cross-contaminated with gluten. We're going to dive into that. There have been a number of studies that have shown cross-contamination even at foods that claim to be gluten-free. Many gluten-free products contain other types of grain-based glutes. Again, if you haven't watched Module one and two, get caught up that have not been studied to be safe for those with celiac and gluten sensitivity.

Then many processed foods contain additives, dyes, preservatives, GMO ingredients, pesticides, hydrogenated oils, heavy metals and large quantities of sugar, all not good for you, all not going to help toward the endeavor of improving your health. Many of these individuals also on multiple medications. Medications, many of them can inhibit your recovery, and we'll talk about that here shortly.

Many of them have microbial imbalances in their gut. Despite going gluten-free, the imbalance still exists, and until they address the imbalance, the problems don't start to recover. Then there's also something called hyper hygiene. We're going to talk about that as well. Stay tuned, we're going to dive into all these topics. Now, the bottom line is this, many with gluten sensitivity and celiac disease are misinformed.

The average person, when they get a diagnosis of celiac disease, depending on where that diagnosis is given, and many of the hospitals and the research facilities, they've gifted a gift basket of highly processed gluten-free food. This is the gluten-free food industry's marketing to get more new customers into their pipeline. They give away a bunch of free junk food in an effort as you're trying to go gluten-free, you're eating all this junk food because you're trying to figure out this gluten-free diet.

That's a big part for many people, is they're misinformed. The fact that gastroenterologists would allow junk food to be given as a gift to their patients when their patients are chronically sick with autoimmune disease is a travesty and it's a testament to the lack of nutritional knowledge that most doctors actually have or they wouldn't allow it to happen in their practices.

If you've gone on a traditional gluten-free diet, here's the thing, it's common to feel better, but it's also common to develop new issues. Again, talking about a traditional gluten-free diet, not the true gluten-free diet, it's a common phenomenon that occurs. Going gluten-free initially, you feel a little better, but then you can develop additional problems. I want to talk about a concept called gluten-free whiplash, it's very important for you to understand what gluten-free whiplash means, what gluten-free whiplash is.

The gluten-free whiplash effect occurs approximately three to six months after starting a gluten-free diet. Let me explain. When one goes gluten-free initially, there's this state of dietary distress and confusion because we don't really know what we're doing. I've been in those shoes, I was in those shoes almost 20 years ago. The typical gluten-free diet learning curve is about an eight to 12-week curve, and that's because you've got to spend enough time educating yourself on what gluten is, where gluten is found, cross-contamination, hidden gluten, all the ins and outs and tricks, and secret words that really mean gluten that don't actually say, gluten like that all takes time and education.

Once this learning curve is conquered, people tend to gravitate toward the processed, packaged gluten-free stuff. They tend to embark on the diet seriously at first and then again, three to six months in, they start to loosen up the reins a little bit. They're feeling better. It's a commonality of psychology is that when we start feeling better, we tend to slip back toward those older habits.

This is when that laziness and that lack of diligence and choices around the gluten-free diet can start to set in. Then we start potentially getting some exposure. That's gluten-free whiplash, it's when we let up those reins and then gluten exposure whiplashes us right back into potential symptoms. Gluten whiplash is a phenomenon that I have observed personally over and over again in my practice where people start to develop new symptoms after being gluten-free for several months.

This typical case coincides with the liberal use of processed gluten-free products. It's very, very common for a person to go gluten-free, many people want to do it right in the beginning, but afterwards, they start getting lazy and they gravitate to those gluten-free food isles, and they start eating a bunch of processed junk food that's

being labeled as gluten-free. That stuff starts to really deteriorate their health again, hence, gluten-free whiplash.

Remember, as we said earlier, one cannot achieve good health consuming food that isn't healthy or consuming unhealthy foods. You have to understand what is health? First of all, if we define what health is, according to medical dictionary, health is a state of complete physical, mental and social well-being and not merely the absence of disease and infirmity. Meaning, just because you don't have active disease, doesn't make you a healthy person. True health is physical, social and mental well-being.

Part of physical, social and mental well-being is nutritional well-being because nutritional well-being feeds your physical frame. It feeds your mind. It feeds how you interact socially with your peers. We're going to dive in to more on food and mindset. Why do we eat? Let's talk about that because I think that's an important question to ponder. What is the purpose of eating if we just start from the fundamental scratch point because a lot of people, when they get their diagnosis, when they're told they have a gluten issue or celiac disease, they're in a pity phase. They're in a pity party. They're in a, "Poor me. Oh, no. What am I going to do?"

Really, we have to ask this fundamental question, why we eat? We eat for nourishment. In society, we've made eating for fun, we've made eating for parties, we've made eating about visitation. We've created an industry around why we eat that has nothing to do with why we're supposed to eat. The premise of eating is to provide a source of nourishment and fuel so that your body has the capacity to heal and repair and maintain itself in a healthy state. It's for the healthy function of the body that we eat.

If we create every other reason in the world to eat that's not for that reason, then we've really lost sight of the entire concept of nutrition. I think it's important to start with that. Food choice matters. Look, one of the most profound and unrecognized aspects of the cause of disease and of poor health, is poor diet choice. We have the freedom to choose. We have the intelligence to choose wisely. Maybe we're not educated about choosing wisely, but we have the brains and the will to get educated.

That's why you guys are here with me in a Glutenology Health Matrix. You're here because you have the will and the desire and the intelligence to know that what you don't know is sometimes the thing that keeps you back. We're diving into that. However, we also allow-- This is common too. We allow social pressure to cloud our thinking. We're all guilty of this at certain points in our life and at certain times. Even myself. Nobody is perfect. I'm not trying to incriminate you before we even get started. I'm just trying to share with you social norm here. We have the ability to justify bad choices.

A lot of people will say, Oh, I'm going to eat bad all through the weekend and I'll start on Monday. I'm going to get a fresh start on Monday. What that psychologically really is saying is it's saying, I'm going to justify doing everything wrong for the next four or five days and then I'm going to be good. What it leads to is a binge-fest for most people. Remember that food choice matters. Who you hang out with matters.

Let's talk about why you're going gluten-free. We eat because the concept of eating is for health. It's not necessarily for fun, but it's for health. Why are you going gluten-free? It should be the same answer. It's because you want to be healthy. It's because you have an issue with gluten and it's deteriorated your health to the point where the pain of your illness is greater than the pain of your fear of changing your diet. That's where most people who are ready to embark on a gluten-free diet are. If you're not there yet, then you probably won't be successful going gluten-free.

Why are you going gluten-free? For those who have gluten sensitivity, going gluten-free is a necessity to achieve and maintain health. That being the case, why then do so many choose unhealthy foods? Processed gluten-free food is a multi-billion dollar industry. We know people are buying the junk. Ask yourself this question, is that processed gluten-free food good for you or is it not? Because if the premise of eating was for you to help regain your health, trading out regular junk food with gluten-free junk food isn't going to get you anywhere. It's important to ground yourself in truth before you get started.

There's this thing called history. The old saying is, "Those that don't know their history are doomed to repeat it." Think from the perspective of history. Why is it that when people learn that their food is unhealthy, they immediately seek out an unhealthy processed alternative to replace it with? If we look at examples of that in our history, one of the perfect examples is hydrogenated oil. Butter, we came out with this. Butter was causing heart disease, not really. Butter never was causing heart disease, but that was the myth at that time. What happened was some entrepreneurs created hydrogenated oil, a vegetable oil. Really not vegetable oil, it was actually corn and soy oil.

They figured out a way to add hydrogen to it, and make it solid at room temperature, and then they added yellow dye to it and called it margarine and said it was better for you than butter because it's vegetable oil even though it wasn't technically vegetable oil. The American populace and the world bought that hook line and sinker and for years, used hydrogenated oils in lieu of butter and got sick over it and developed more heart disease over it up to the point where it became its own industry. You see soy butters and dairy-free butters and all these butter spreads.

Ultimately, now what's happening is people are going back to butter because butter is actually, if made by the right cow in the right circumstance and with the right food in the environment, butter is not necessarily an unhealthy food. Now that being said, that's an example of history. What other things do we know about in history? Sugar. Sugar was deemed to be bad. We have all these artificial sweeteners. People immediately seek an alternative. They can't eat sugar, so let's do NutraSweet or Splenda or Sweet'n Low or Sucralose or Aspartame, any of these. Then we learned that these things are unhealthy.

Every time we learn something's unhealthy, we look for a quick alternative. The alternative generally tends to be something that is also unhealthy. It's just unhealthy in a different way. Look at, for example, meat. People were told in the '60s and '70s to go vegetarian. There was this big push for vegetarianism. What did they create? They created genetically-modified soy burgers and tofu dogs and all this other

nonsense that's not good for you. They created this big premise around eating tons of grain, which is a big push for why we're seeing in it-- One of the reasons why we see an increase in gluten sensitivity was the actual vegetarian movement that pushed all these grains in large, large quantities.

Again, trading one food out for another food that we perceive to be healthier, it actually turns out to not be healthy. Then soda. Instead of drinking soda with sugar, there was diet soda. Fat. Instead of eating fat, we did fat-free substitutes like Olestra, that caused anal leakage and other problems and fat malabsorption and vitamin E deficiencies. Then carbs now are bad. Now, instead of eating carbs, people are gravitating toward processed ketone products. Let the test of time. If history yields any wisdom that the test of time on that is going to be those things aren't good for you either.

The fundamental premise is are gluten-free foods any different? Always start with that honesty of if it is a processed package food and it's full of chemicals, you're not going to really regain your health eating that stuff regardless of its gluten status. To regain your health, you've got to start from ground zero. What does ground zero look like? Ground zero looks like eating real food. It looks like eating food that is actual food and not compressed chemicals in the shape of food or chemicals with some food but mostly chemicals. That's not real food. We want to start with real food.

What does that mean? It means non-GMO, nongenetically-modified organisms. It means organic, if possible. It means hormone and steroid-free. It means chemical-free. It means minimally-processed or not processed at all. It means appropriately raised and cared for. If we're talking about animals, we want our cows to be not on mass production farms. Those things are travesty to the dignity of animals. They're also not good for your health. We want foods that are low in calories. We want foods that are high in nutritional quality and density. That's ground zero.

This is mindset, folks. If you understand that premise and you understand that you have, with the power of your fork and your knife, the ability to change the future and the outcome of the disease that you're struggling with if you do it right, but you have to take the first step and acknowledge that ground zero starts by eating what's real, not what's fake.

Now, if you feel like this guy, I understand. We've all been there at some point when we were getting the information passed on to us that we needed to radically change everything we thought we knew about how eating properly was wrong. We needed to radically change everything that we knew, everything we were familiar with. It can be very frustrating.

I want you to just sit back and take a really deep breath. Get prepared over the next six to 12 months to do a lot of deep breathing because that's going to keep you grounded too. It's not the end of the world. Going gluten-free, I promise you, it is not the end of the world. It's the beginning of a new you. It's the beginning of a new healthier you. You're about to embark on a life-changing journey for your health. Realize that you need to reevaluate your relationship with food. In essence, you need to learn to eat to live and not to live to eat. Now, some of you are foodies. I

grew up in a foodie household. I mean, everything was, let's celebrate with ice cream or let's celebrate with baked goods.

That was the way I grew up and I was an obese child. At some point, we all have to re-evaluate our relationship with food and learn how to live to eat, but that doesn't mean that we can't learn how to create things that taste good and still have some of that eat to live component. We just have to recognize and educate what those things are and how to bring them into our lives.

The reality is some of you are going to roll up your sleeves and go to work and some of you are going to go through the phases of grief at first. There's no wrong way to approach this. I want to be very clear, not everybody has the ability to roll up their sleeves and go cold turkey. Some people have to phase it in and the reason why is you have to grieve the loss of something you love.

Many people love food, food is part of how they weathered the storms of life and conquered parts of life and it created memories and social engagements around the memories of food, grandma's cookies or whatever that looks like in your life. There's not a wrong way to do this. You just want to get to it as quickly as possible because the longer you wait, the more you'll suffer.

At this point, we're going to stop for just a minute because I want to make sure it's very important that you thoroughly understand what gluten is at this point. We've covered what gluten is in module one in great depth, probably more scientific depth than you've ever had it covered. I did that on purpose because it's super important for you to understand what that is. If you have not yet done it, you need to stop right now and go back and watch module one of the health matrix, of the Glutenology Health Matrix because the answer of what gluten is, is detailed-oriented, and it needs to be so that you can be successful.

The average gluten-sensitive person is already very confused because until now, there really has not been a good consensus of information available to help educate them on gluten sensitivity. If you are not yet clear on what gluten sensitivity is, again, go back and watch module one. Remember others are going to try to make you confused about this. They're going to try to make this way more confusing than what it needs to be and they're not experts. They're what we call armchair quarterbacks and nobody really appreciates armchair quarterbacks. They comment on things they don't have mastery of knowledge or skill set over and that's easy for anybody to do about anything.

Remember, don't let them get in your head. You want to be clear because the first stage for many of you, is going to be grief and the first stage of grief is denial. If you've got people around you telling you, that Dr. Osborne, that whole message, you can eat all the junk food that you want and just have a bite of this cookie, it's not going to hurt you, and you're in a stage of denial and you're surrounded by people who are tempting you all the time, then it's going to be really easy for you to fall backward.

Again, remember what are the phases or stages of grief? Just a brief lesson on those. Denial, this can't be happening to me. I can't possibly be gluten-free. Oh, my gosh. You're denying that it even exists and that stage, that could go on for weeks, and for some people does. Again, there's no wrong here. It's like grieving, there's no wrong way to grieve. There's no wrong way to grieve your loss of gluten as long as you come around to the truth of acceptance, which is the final stage of grief. There's denial, anger, bargaining, depression and then the final stage, which is acceptance, which is where in that stage, we can roll up our sleeves and go to work.

Some of you aren't foodies and you're already at acceptance, if you are, fantastic. This message is for those of you who maybe are struggling a little bit more. You may go through that denial. You may go through an anger stage, where you're mad at the world and you're mad that you have to give up gluten, and you're mad that you can't have the cookies or the pasta or whatever that food is that your favorite food that contains gluten.

Then, you'll bargain with yourself. After you come out of anger, you'll be like, well I'm going to eat less, but I'm only going to have one cookie. I'm not going to eat 12 cookies. Again, whatever that looks like in your world, but that's bargaining, and if you find yourself doing that, you're still in those stages of grief. Then, you go into a depression where it's just your pity party. It's just like, poor me. I really wish I could have these things. I really miss these things. Life isn't fair.

That's an actual stage as well. Again, recognize if you're going through these stages and know that it's not like denial, anger, bargaining, depression is like each one is one week only. It's like sometimes you're in anger for a week and then you go back to denial and you skip anger and you go to bargaining. These phases are just-- think of it as a shift curve that occurs over the course of weeks or months, and some people only days. Again, if you're not a foodie, this can happen very, very quickly. You might have moments where you come into some grief, but again, understand it, what you might be going through, especially those of you who are major foodies.

The other thing is many of you are addicted to gluten and don't even know it. I've talked about gluten and we mentioned a study on gluteomorphine, meaning that gluten actually can break down and form opioid compounds. These opioid compounds are drugs. Just like people can be addicted to opioids. Opiate prescription addiction is a major, major problem in the US. As a matter of fact, been lawsuits paid out billions of dollars in rewards over these drugs creating massive addiction, and death, and life-changing alterations in people.

Opiates are very, very powerful and gluten proteins are a source of natural opiates that can create a natural addiction to the food. This is why some people, when they're sad or depressed or they're in pain, they want to gravitate toward eating something with grain in it because it's their opioid, it's their natural opioid that gives them some degree of relief. Some people are addicted to gluten and this can make the problem even more challenging in some cases.

What to expect when you're going gluten-free, you may develop symptoms of withdrawal. It's not uncommon to develop symptoms of withdrawal. Gluten has

addictive qualities for many, and some of the symptoms, low-grade fever, malaise, fatigue, irritability, severe cravings, particularly cravings of gluten-containing foods, nausea. Some people develop skin rashes. Some people develop chills. You think of drug addiction, think of the symptoms. The same symptoms that are involved in drug addiction in rehab, can be involved in some people. Now, the severity of gluten withdrawal is not quite as great as we see in some major addictive meds, although in some people, I do see super severe withdrawal.

Let's talk about a couple of nutritional strategies since we're talking about withdrawal that may help you through this period. There've been a couple of nutrients that have been studied in the addiction research that doctors who deal with patients with chronic drug addiction have found to be very helpful in helping overcome those addictions. One is vitamin C.

My recommendation is if you're finding yourself struggling with these addiction withdrawal symptoms, take some vitamin C. You want to inject, not inject as in inject, but inject as in take orally three to five grams a day for an adult is a reasonable amount to help support you through that time. That's one thing you can take. The other is B vitamin complex. The B complex, particularly a B-complex with niacin, which is vitamin B3 can also be very, very helpful. Adding those two things to your nutritional support might help you overcome that addiction withdrawal phase of getting off of gluten. Just be aware, those are a couple of strategies we can inject.

This study, I'm going to put it up on the screen, but you can see gluten can be degraded and I showed this to you earlier, but it can be degraded into several morphine-like substances called gluten exorphins. These compounds have proven opioid effects and could mask the deleterious effects of gluten protein on the GI lining. Here, we described putative mechanism explaining how gluten could mask its own toxicity by exorphins that are produced through gluten protein digestion. Again, any time we talk about opiates and opiate withdrawal, we know there can be an addictive quality to that withdrawal.

All right, next. Don't expect to be gluten-free tomorrow. If you're just finding out or if you just got a test back, you know your celiac, if you just got to test back, maybe you order a genetic test, you got it back and you're ready to go gluten-free, don't expect to be gluten-free by tomorrow. Let's talk about realistic expectations of yourself. If we set unrealistic goals and unrealistic expectations, and then we don't meet them, then we're going to beat ourselves up emotionally and internally. We don't want to set the stage for failure. So don't expect to be gluten-free tomorrow, understand this is a learning curve.

Eight to 12 weeks is pretty typical and you're going to make mistakes. I promise you you're going to make mistakes. I still sometimes slip up and make a mistake and I've been doing this 20 years and teaching people how to do it for that long. The key is not beating yourself up over the mistakes, commit to educating yourself. You're doing that by taking this course. Understand that food is an integral part and an integral component to your relationship with health.

There are a couple of just general guidelines. You may not be gluten-free tomorrow, but what I want you to focus in on is don't eat gluten on purpose. Again, the mistakes come in the form of not knowing because you don't have enough information possibly yet, but that doesn't mean go have a subway sandwich. That doesn't mean enjoy a bowl of cereal. What I'm saying is don't eat gluten on purpose as you move forward but if you do make a mistake and you come to learn that something that you didn't think was gluten is gluten learn from the mistake and move on.

I'm going to discover a lot about how to navigate restaurants and cross-contamination and food labeling. We're going to be talking about that in the next module, so bear with me here but you want to learn from your mistakes and make aggressive changes when you make those mistakes.

Expect people to feel sorry for you. That's another psychological component of what'll happen. A lot of people, they don't understand diet. They're not healthy. They don't understand diet as it pertains to the relationship with your health and they don't understand why you'd ever want to change your diet and maybe they're foodies and they love their pasta and their cereal or whatever it is. They're going to feel sorry for you. Just don't let you feel sorry for yourself. Don't allow that to seep into your mentality.

Social reactions are only going to hold you back. Be aware parties, social events trying to lure you into eating against your genes because as we've talked, gluten sensitivity is a genetic piece. Not everyone will understand your commitment to your health and it's not their job to understand it, but it's also not your job to have to justify your choices to everyone either. Instead of trying to engage everybody in a convincing conversation where you're trying to convince the world to go gluten free with you, ignore them and move on and become a role model for health.

At that point, when you become a role model for health, they will come to you, they will say, Hey, you're the one that's been doing this gluten-free diet and you've lost 30 pounds, or your skin no longer has eczema, or your hair is growing again or whatever that symptom is that you were having or that thing that you were struggling with. As you become the role model, they're going to want to come to you because you were able to do it and your story of personal success is going to embolden them to step up and have that conversation with you.

Before you're successful in your endeavor at going gluten-free, most people they're going to pity you and they're going to try to lure you back in to the realm of eating gluten, because the fact of the matter is most people know they need to change their diet, most people know that what they're eating, isn't the greatest for them and the way they justify their continued bad choices for themselves is they get a buddy to come along and have the same bad choices with them.

This is why it's very hard for a cigarette smoker to kick the habit of smoking if they live with somebody else who smokes, unless they both decide to do it simultaneously can be a very, very big challenge because the one that's trying to quit is always being commonly lured back into it by the one who doesn't want to quit. It's the same thing with gluten sensitivity is that you want to surround yourself, not by

people who pity you, but you want to surround your yourself by people who will support you in this endeavor.

Another question that comes up is how long before I feel better? What does that look like? This depends on a number of different variables. It depends on whether your illness is being caused or contributed to by gluten. Look, as I said in module two, I talked about it more than 100 conditions that we know gluten can cause or contribute to but I also said that even though we know gluten can do those things, it doesn't mean that everyone's disease is only caused by gluten.

There are other variables within why you're not feeling well and we're going to get into some of those variables in an upcoming module called the seven highly effective habits of the gluten-free warrior where you'll understand better the timing of how long before you feel better but if your illness isn't being contributed to by gluten, you won't find that you get better.

If your illness is, you should find slow, steady improvements over time. Don't look for a miraculous change overnight although for some people that does happen, I've had people call me in three or four days and say, I can't believe how much the pain is gone. I can't believe that the headaches are gone. I can't believe how much better I feel.

These are not uncommon things either, but again, don't set your expectation of outcomes based on somebody else's outcome. Set your expectation of outcomes based on your own consistent behavioral choices and actions and know that one exposure to gluten can cause inflammation for up to two months and so, as you're glowing gluten-free, and you're learning the ropes, and you're figuring this out, you're going to have an ebb and flow. You're not necessarily going to have this just massive change, unless you're one of those types of highly, highly motivated and highly detail-oriented, self-restricted people that can just cold turkey everything and win.

If that's not your personality type, it may take several months. On average for most people, I look at, if you're struggling with autoimmunity, 18 months for the autoimmunity to generally go into a quiescent or a quiet place, but it doesn't take 18 months to feel better.

Most people notice they're feeling better in different ways, within a few weeks, some within a few months. There's a varying range. Again, it depends on what types of illness that you have, how severe your symptoms are and how compliant you are with the diet. It depends on your approach to your health beyond your diet, all those other variable factors matter. They matter a great deal for your success.

Generally speaking, most people again, feel better within a few months, many within a few weeks, some within a few days, full autoimmunity 18 months to three years as a general guideline. That just depends on the variables of life and the curve balls that life will throw at you as you're trying to improve your health. Let's shift gears a little bit. Let's talk about food purchasing. When looking to buy food, a couple of things I want you to understand.

Number one, highly processed foods are not healthy regardless of what the label claims in terms of gluten-free. We want to try to avoid the highly-processed components of food. Be wary of grain-based fillers. This is a big mistake. A lot of people don't read the label carefully enough to identify some of those grain-based fillers and they get hammered. Be wary of terms you cannot pronounce.

If you can't pronounce them, that means you probably don't know what they are and if you don't know what they are, that means you probably are getting exposure to something that potentially isn't all that healthy for you or it could be a hidden source of grain, a hidden source of gluten. Be ware of ingredients that aren't real food, again we said starting from ground zero, identify that what you need to start focusing on is just eating real food. If we could just start with that one element, you can move yourself in a fantastic direction.

Then be aware that many process foods can be cross-contaminated with gluten. A couple of studies have been done showing up to the 40 some odd percent of processed foods have actually been shown to have some gluten contamination in them to the level that it could cause damage in somebody with a high level of gluten sensitivity so just be aware of that.

Gluten and food additives. There's obvious and there's non-obvious food additives, there's things that we can see like, for example, if the product is wheat flour, that's pretty obvious, but if it lists another term like *triticum aestivum*, which is not a commonly known term but it's a grain, it's a gluten containing grain. You don't know that term, then that's where you can get into trouble. The obvious versus the non-obvious, label reading becomes a requirement as you move forward.

Another hallmark here is don't forget the non-edibles, okay? The things that go on or in the mouth, but you don't necessarily eat, like chewing, toothpaste, mouthwash, lipstick, facial lotions, like these things, although gluten technically is not supposed to go through the skin. I have seen a number of people react to gluten containing lotions, particularly oatmeal containing lotions.

I wouldn't put faith or trust in-- there's some small research studies that say that the molecular weight of gluten is too big to pass through the skin but if your skin is already inflamed and if you basically, if you have leaky skin, those particles or molecules can penetrate that leaky barrier, which is an inflamed skin. If you've got pre-existing skin inflammation, you really want to be cautious about not allowing lotion, soap, shampoos, detergents, things of that nature with hidden gluten in them on your skin, because there may be that potential for you to react greater than if you didn't have skin inflammation.

Now I'm going to throw up on the screen for you, just some examples of labels and we'll walk you through some of the real-world action of this. If you look up on the left-hand side, what you're going to see are a couple of different products here. One is that a-- again, these are processed foods, right? I show this to you just to show you when you're buying processed food, what you're really getting is processed garbage.

In this particular product, it's a chili mac product. You look at the highlighted ingredients in blue, these are things that potentially are grain-gluten base. Right at the top, you see there, it says rice pasta, white rice flour and then a couple down below, you see non-GMO corn. Again, if you are very confused right now, because of I'm talking about corn and rice and you thought they were gluten-free, you need to go back and watch module one so that you can get caught out.

Then you see maltodextrin. In this case, its corn maltodextrin, which is a form of derivative sugar derive from corn. Then you see again, a little bit lower down, you see sweet rice flour. Those are just examples of hidden. They're not as obvious, but also, they don't adhere to the standard of a true gluten-free diet. You'll see in the next product, which is a beef soup stock, you'll see maltodextrin, you'll see hydrolyzed soy protein, which by the way, anytime you see hydrolyzed soy protein, turn around and run the other way. It's just not a healthy product. Most soy, more than 90% of soy produced in the US is loaded with glyphosate which is a chemical

they spray the crop with. These are GMO crops, you don't want to eat products that are GMO, but you'll also see in this product: maltodextrin and dextrose, two forms of sugar. When you see maltodextrin and dextrose, that's sugar. Then the next question is where is it derived from? It could be derived from corn. It can be derived from wheat. It can be derived from tapioca and potato. There are a number of sources to basically get or extract maltodextrin from, you just want to be aware. If it doesn't tell you what the source is when you're reading the label, call the manufacturer. If it's a product you want to use, call the manufacturer, make sure it's a grain-free version of maltodextrin.

Again, if you look at this product on the right-hand side of the page, that long, big food label there, you'll see under the ingredients, you'll see gluten-free flour, cornflour, soy flour being the first two ingredients, and then rice flour, corn starch. Again, these all don't adhere to true gluten-free diet components. Again, this is one of those times where if you're following what the FDA uses as label claims, if you're following that, again, and if you haven't watched module one, you don't understand what I'm talking about, but if you have watched module one, you're very clear on this. You know that the FDA's definitions are based on antiquated, older science that needs to be updated. That's one of the big problems that we're having. That's why so many people, as I've just laid out to you earlier, so many people go gluten-free and still have problems.

In most studies, 92%, 50%, and 30%, three studies show that people go on gluten-free. That quantity of people fail to get a resolution. These are some more products I'll put up on the screen for you. Again, I'm not advocating or non-advocating what you should or shouldn't buy. I'm not a salesperson or a spokesperson for any of these products here, but this is a major company and the number one ingredient in this product is cornstarch. Then you've got soy flour, which is most likely genetically modified soy flour, and then a couple of ingredients later, you've got rice flour. Again, this is a major gluten-free company promoting this product, and I think that's part of the problem, is some of these companies promoting products that have and they're

calling them gluten-free, but they're technically not gluten-free, and they're creating the potential issue for problems to evolve.

This next food ingredient page, we've got a gluten-free, what they're calling a gluten-free and wheat-free gravy mix. Gravy is one of those areas where you got to be super careful because most gravies are thickened with some form of starch. In this case, it's corn starch and rice flour and maltodextrin from corn and dextrose from corn, and then it has caramelized sugar. Again, all these names aren't healthy anyway, even if you were just looking at this and could care less about gluten, these are just not healthy ingredients. Again, going back to the cardinal rule of nutrition.

The next product, which is a roll. Again, the predominant ingredient, cornstarch, rice flour, not necessarily something you would want to gravitate toward.

Let's talk about another problem in the processed food industry. What I just showed you were a bunch of processed food levels and showed you examples of some things on food levels, but I'm going to put this study up on the screen for you. You can see MTG treatment, increased reactivity to wheat and maize prolamines in patients with celiac disease. What does this really mean?

This is a research study recently published that found that when processed foods were treated with a chemical substance called MTG, MTG stands for microbial transglutaminase. It's also known as meat glue. You may have heard me talk about meat glue before, maybe not. Meat glue is a bacterial slime. It's a by-product of a type of bacteria that is used as a thickening agent and a texturizing agent in processed foods, and they add meat glue to a lot of corn-based products and a lot of wheat-based products because of palatability. It changes the palatability of the food. A lot of the gluten-free food industry uses MTG in producing their products and they treat the corn gluten with MTG.

What the study is showing is that when you treat wheat or corn with microbial transglutaminase, it makes the protein in the wheat and the corn more dangerous and reactive to those patients. Again, going back to those food labels I was showing you, there were a lot of corn-based ingredients and potential-- Again, highly processed, the potential there to be treated with microbial transglutaminase. It poses the question, is this one of the reasons why so many people going on a gluten-free diet fail to respond because they're eating a bunch of corn products that are treated with microbial transglutaminase because the products were being called gluten-free?

This next slide you can see was published in the journal, Nutrition Reviews, and it talks about meat glue and what happens in meat glue. You can see continuous consumption of industrial processed food has led to an increase in the prevalence of celiac diseases. At least that's what scientists believe. One of the reasons why is this MTG, this meat glue because they're adding meat glue to the product. Meat glue changes the nature of the proteins in that product, and it can make those proteins look more like an enemy to your immune system, creating the same damage that's created in celiac disease.

Again, a number of research studies have been published on meat glue and how it can potentiate the damage. This next diagram I'm going to put up on the screen for you are just some common examples of products that contain meat glue. Now you need to understand that meat glue doesn't have to be on the label. If you're reading the food label and the ingredients, it won't say meat glue, it won't say treated with microbial transglutaminase. This is one of those times where when you're buying processed food, you pay the process price or you call the company and you get more details.

You can see meat are commonly treated with meat glue. They can actually take bits of chicken and they can use meat glue, and they can form what looks like a chicken breast and put grill lines on it, and sell it to you at the restaurant as chicken breasts. They can do this with a lot of different meats. You can see your steaks and chicken nuggets and chicken pieces and hot dogs and sausages and lunch meats and filets and roasts, the whole list there. These are all-- Again, if you're eating out at restaurants, if you're eating at fast-food chains, if you're eating at big conglomerate food company chains, this is where you're going to have more likelihood to run into meat glue.

Now, if you're eating at a restaurant where there's a chef and they whole source all their ingredients from a local market and everything is actually real, then the likelihood you're getting meat glue in your meat is less likely. I would still ask because, again, you're probably going to be eating out and you want to do it in a safe way.

Dairy can also contain meat glue. Meat glue is not specific to meat. It can be found in dairy products. We've got yogurts and ice creams. Again, it's a thickening agent, enhancing agent, creams, frozen desserts, and confections that are dairy-based and even non-dairy based can contain microbial transglutaminase. You want to ask the question. Processed food, baked goods, pasta, cereals, tofu, gluten-free processed foods, particularly, are notorious for containing this meat glue substance. Again, if you're not sure, call the manufacturer before you make that product a staple in your home.

Seafood, fried fish sticks, fish balls, imitation crab meat. These are all potential options to get exposure to meat glue, and then restaurants. Again, where you're going to get a lot of exposure is restaurants because restaurants, their whole goal is profit and their business, and we don't blame them for wanting to make a profit, but cheap food at high prices and cheap food that's layered and covered in butter and sugar because butter and sugar make everything taste good, it's a standard, an industry-standard in restaurants. Again, just depending on where you eat.

That's why one of my best pieces of advice is to eat where there's a chef, not a cook, and eat out less often, eat at home, control the source, control the food. Remember what's happened in the last 50 years is we've given this inordinate amount of trust to food companies and what have they done with that trust? Really, they've destroyed it. They sell us products that make us sick, and then when we get sick, many of these food companies are the same companies that own the pharmacy companies. It's now some of these same corporations are now feeding us the drugs because the

food made us sick, and now we're taking drugs to treat the illness that the food caused at the bad choice cost.

Go backwards and look at your food and really try to understand where it comes from, how it was sourced, how it was made, and make better decisions. This is what it's all about, and you'll avoid meat glue when you do that.

This is more information about meat glue, you can see here, this substantial luminal activity of the microbial transglutaminase enzymes, leading to cross-linking of naive proteins can potentially generate neoepitopes that are not only immunogenic but may also contribute to the activation of some undesirable inflammatory pathways involved in the autoimmune process. Let's make English a very confusing statement. What that's basically saying is that meat glue can alter proteins to look like new enemy proteins that your body reacts to leading to the process or the generation of auto-immune issues. We don't want meat glue as a staple in our diet. This is what the research is panning out.

This next diagram I'm putting up for you is just a diagram of what meat glue looks like, and you'll see all of these arrows around it. These are just some of the different arrows of what has been studied that meat glue can affect inside your body. I'm not going to belabor those points. My bottom line on meat glue is it's not good and you really should try to avoid it as much as you're trying to avoid gluten.

Let's talk a little bit about processed food and additives as well. This study was published in the journal, Autoimmune Reviews, in 2015, and you can see changes in intestinal tight junction permeability associated with industrial food additives explain the rising incidence of autoimmune disease. Again, this author believes that the different components, here's some examples of what they're citing in this study. They're saying that some of these food additives are glucose, which is sugar, salt, emulsifiers, organic solvents, gluten, microbial transglutaminase, aka meat glue, and nanoparticles, this whole nanotechnology stuff is new, are being used by the food industry in a manner that we're being told is safe.

Again, this is what I meant earlier, we've given an inordinate amount of trust in the food industry, and here's what they're doing. They're putting all this garbage in our food so that they make us want to buy and eat more of it because they're using chemicals to manipulate the way we experience our food, the way we taste our food, the way we smell our food and these chemicals are very powerful and can create an addiction and addictive-like quality. You've got to be careful.

Again, if you're not eating processed food, you don't have to worry about any of this. What these researchers are saying is that all these different chemicals lead to a leaky gut in a nutshell. This next image I want to put up for you is on glyphosate. Now, this is just another food chemical. Think of it as a pesticide herbicide. It's used on GMO-ready crops. These roundup-ready crops like corn and alfalfa and sugar cane and beet and soy, they're genetically manipulated crops that can sustain the poison of glyphosate while all the other weeds around them die.

What happens in traditional farming today is that the ground is sprayed with this chemical, the seeds are doused in pesticide, when they start to grow, they're sprayed and then before harvest, they use the glyphosate as a desiccant to dry the crop. Basically, your grain-based foods, many of them are so poisoned by the time they come out of the ground, they're contaminated with higher levels of glyphosate. Now, the diagram that I've got on the screen for you, again, this diagram is correlation, not causation.

Here's what I'm not saying. I want to be real careful, and I want you to be real careful of this too in that we can't say that glyphosate is responsible for all of this. As a matter of fact, we can say that it's not because there's plenty of evidence that says that glyphosate is one piece of a multifaceted puzzle, but what we can do is say when the use of glyphosate has increased, so too as the rise or incidents of diagnosis of celiac disease.

Now whether or not glyphosate causes the celiac disease, or whether or not the glyphosate allows the celiac disease to come on faster or to perpetuate quicker, or whether it kills off the gut bugs, the healthy gut bugs, and then you're more susceptible to gluten exposure. Is it a causal relationship, is it a corollary relationship? Nobody knows at this point, further study is needed. However, that being said, we can't ignore the correlation. This is one of the reasons why I recommend non-GMO and organic food because you want to keep your food as glyphosate-free as possible.

If you follow the news, there was a recent lawsuit against the manufacturer of glyphosate, and it was a multi-billion dollar award because they found in this trial that glyphosate was responsible for the gentleman's cancer. What they also found is that the company that produces glyphosate, which was Monsanto, and I believe they were bought out by Bayer. Bayer, by the way, owns your food and now they own drugs and your food, but they were caught lying about the research. In essence, they had internal documents where they knew there was this increased risk for cancer, and they shoved it under the table and tried to hide it.

In any way, in the court, they were found guilty of that. There was this huge financial reward dished out recently. We know glyphosate, the World Health Organization calls it a potential carcinogen already. I think now we have more data that really points to the dangerous nature of that chemical. We want to avoid it.

One of the other things to consider, I said earlier, we would talk about hyper hygiene and the fundamental question, are we too clean? In our society, we overdo antibiotics. There's antibiotics in the meat. There's antibiotics doled out like candy at Halloween time to kids, whether they have a bacterial infection or whether they have a viral infection. A lot of pediatricians just say, "Hey, well, here's the antibiotic, just in case."

There's antibiotic residue in our water, there's antibiotics that aren't really intended to be antibiotics, for example, in your drinking water, there's chlorine and fluoride, which are natural antibiotics. A lot of the antibiotics are made out of chlorine and bromine-based chemicals. We've got sanitizers, all these chemical sanitizers. We've got

massive germaphobia, we've got food that's being radiated to prevent germs. Our chemically clean water is got pesticides, pharmaceuticals, chlorine, and fluoride, and other toxins in it.

There's some researchers that believe that all this effort toward being germ-free and being absence of germs is actually one of the reasons why we have an increased development or rise of gluten sensitivity and it's also one of the reasons why we have an increase incidence of auto-immunity. This theory that's being put out there is called the hygiene hypothesis. Are we too clean? Do we not get our hands dirty enough? Do we wash our hands too frequently? Do we live in sterile environments that we never get exposed to external germs?

Remember our immune system needs to train. It needs to learn what to fight against, but it also needs to learn what is okay. When we're in sterile environments, it doesn't really get trained properly and so when it tends to come across something that may be a danger, it wants to overreact because it doesn't know how to react.

You can see there's a research study that was published in the Annals of Medicine in 2008. The title of the study was, Lower economic status and inferior hygienic environment may protect against celiac disease. The conclusions of this research study was that the prevalence of transglutaminase antibodies in celiac disease is lower in Russian Karelia than in Finland, and this may be associated with a protective environment characterized by inferior prosperity and standard of hygiene in Russia. Meaning the hygiene standards are lower in Russia than they are in Finland, but you have less autoimmune disease in Russia. Again, the conclusion is that this increased hygiene, this hyper hygiene, if you will, actually increases the risk for the development of autoimmunity.

We also have auto-immunity increasing exponentially. I'm going to pull up another diagram for you here. You can see since 1950, this is not a comprehensive diagram of all forms of autoimmunity, but it's certain ones, but we could draw a similar graph here for the other autoimmune conditions as well. You can see multiple sclerosis, Crohn's disease, Type 1 diabetes, and asthma are all in exponential orders of magnitude increasing since the 1950s. This study was published in New England Journal in 2002. We're several years beyond that at this point, nobody is really watching this with a close degree of scrutiny.

This is what we knew many, many years ago. It's worse today. Then I've shown you this graph too, the estimated global prevalence of celiac disease since the 1950s has increased by a hundred fold. That's a hundred fold increase. That's a pretty big increase. Why? Ultimately, I think that's the question that needs to be asked. Why are we seeing the increased risk? Hygiene may play a role in that, food additives, food chemicals, pesticides, toxins in the environment, gluten, more gluten consumption in the diet. As I mentioned earlier, 50% of the total caloric intake comes from wheat for standard people in industrialized countries. We've got a lot of factors converging and convening simultaneously that I think create a pretty good storm for all these things happening. All roads lead here.

This next diagram I want to show you is on leaky gut. What I've done is I've just put up a diagram that gives you an idea of the different things that cause leaky gut, because when we're talking about gluten, remember why does gluten cause autoimmune disease? Because it causes leaky gut. This is one of the reasons why that happens. These other things on this list can also cause leaky gut. Your GMOs, your plastics and pesticides, over-training, hyper-aggressive exercise.

We know medication, certain medicines definitely can do it. We know certain bacterial imbalances or infections can do it. We know that food allergies can do it. We know potatoes, there's a compound in potatoes that's been recently studied that looks like it may cause leaky gut for some people. Again, these are some of the known elements of what might be causing leaky gut. I think it's important to understand those things and try to control them the best, and here's why.

What does leaky gut damage do? Number one, it overstimulates the immune system fulfilling the potential of auto-immune disease. Number two, it allows bacterial and viral toxins across your gut quarantine zone into your bloodstream directly, creating a mass scale of systemic inflammation. It causes hypersensitivity to food, it creates new food allergies. People become more and more allergic to the foods that they're trying to eat.

It sets the stage for a process called molecular mimicry. Molecular mimicry is when those chemicals that are leaking from your poop into your blood look like you. Some of those chemicals might mimic your thyroid or might mimic your muscle or your joint. As your body is attacking those chemical toxins, it starts to then turn on your own tissue and attack your own tissue. That's auto-immunity. That's molecular mimicry. It's linked to an abnormal microbiome. We talked about that earlier. Inflammation of the GI tract, malabsorption of vitamins minerals, and other nutrients are a consequence of leaky gut. Leaky gut triggers, a leaky brain, and leaky brain changes the way we think and the way that we feel and changes the way we make good or bad decisions.

Now, it contributes to auto-immunity and it perpetuates the gluten-like symptoms. One of the struggles people have when they're going gluten-free is they're making other decisions that perpetuate a leaky gut. Again, gluten can cause leaky gut, but it's not the only cause of leaky gut. One of the biggest mistakes is going to that processed gluten-free food aisle where you're getting all those dyes and preservatives and GMOs and pesticide loaded foods and meat glue loaded foods, and you're just perpetuating that leaky gut, not allowing for a recovery in your body.

Now, a lot of people will have problems. They'll go, gluten-free, they'll have these problems, and maybe even some new problems will crop up health issues. One of the first things they do is they go to their doctor. They go to their doctor and it's like, "Hey doc, I'm having, fill in the blank X, Y, Z symptoms." The doctor says, "Oh, well you have, fill in the blank name of condition or syndrome." He says, "Well, I got the thing for you here. Let me write you a prescription that should take care of those symptoms. No problem."

That's a solution that is not a solution because giving a drug to chemically manipulate the way you're experiencing how you feel, doesn't solve why you're feeling that way. That would be like the solution to being in debt would be, "Here, let me give you another credit card." That's not a solution to overcoming debt. Just like manipulating the way you experience the world is not a solution to how you overcome disease. It's what it is, it's a pseudo solution. It's pseudo-compassionate. The doctor doesn't want you to hurt. In their role of trying to be compassionate, they're trying to give you something that will help you feel better.

What many doctors don't think about is that what they're actually doing is they're not helping you at all. They're actually injecting a chemical that has the potential to do other things to you that could create new problems. One of the biggest issues with medicines is that a lot of them contain gluten and people don't even realize that on your every medication, there's two lists of ingredients. There's what's called an active ingredient list, which is the actual name of the drug. Then there's what's called the inactive ingredient list, which is the name of the inactive ingredients. Many of these fillers are starch-based, grain-based fillers that can contain gluten.

If you're on medicines, this could be another conundrum for you. You've gone gluten-free but you're still being exposed to gluten through some of your medicines. It's very important that you talk with your prescribing doctor and let them know, "Look, I need this to be gluten-free. We need to analyze this." If your doctor doesn't have the time or is not willing to listen, it's just as easy for you to pull up that inactive ingredient list that you should have gotten when you picked up your medication at the pharmacy, or speak with your pharmacist as well.

You've got your doctor prescribed the drug, you've got the package insert from the manufacturer and you've got the pharmacist. With those three resources, you should be able to reach some conclusion as to whether or not there's a gluten component to the medicine that you're taking because one of the solutions to this is pretty simple. You ask your doctor to write you a prescription for the medicine as a compounded version of the medicine and a compounded version where a compounding pharmacy can put it together, but they don't put the fillers into the pill. You can get your same medicine, but not with fillers. That, again, ultimately it could be the right move for you and help you overcome a plateau.

Now, one of the other things I want to mention is generic prescriptions versus name brand. A lot of our generic drugs today are produced in China, they're produced in India. If you knew the deplorable conditions that they were being produced in, you wouldn't want to take them. There was a recent great expose, I think her name was Catherine Eban, E-B-A-N. She wrote a really good book on the problems with our overseas drug manufacturing.

The FDA has very little stringent oversight on the quality measures that are being not taken that should have been taken in the drug manufacturing process. I would be very wary of any generic drugs at this point. As a matter of fact, there's certain hospital systems that won't prescribe generic drugs to their patients because they were prescribing certain drugs and they just weren't working, and it was because the drug either didn't contain what it said it was supposed to contain or it contained more

than what it should have contained or it contained excipient ingredients that weren't supposed to be there.

Again, when you're dealing with medicines, the whole purpose of going from your doctor to your pharmacy is that there's an oversight in the industry that ensures that what you're buying is uniform and there's this uniformity. If you know you're getting this particular drug, then you know that this drug should have uniformity in the ingredients, uniformity in its research on how it behaves inside your body. Again, the recent switch of a lot of our generics to overseas manufacturing has created some problems in quality issues. Again, I would be really cautious and ask for non-generic versions if you're on a medicine.

Now, I said earlier, the solution that is not a solution, pseudo compassion. I'm going to put up another diagram for you because I want you to understand this too. I want to be very clear, this is not me telling you to quit your medicine. It's not at all. This program is designed to educate you so that you can go have a meaningful conversation with your healthcare providers. It is not me instructing you to stop or quit any of your medicines. I want to educate you though. That is, you need to understand that medication, when properly prescribed, is actually the third leading cause of death in industrialized countries, in the US particularly.

How is that possible? If we call heart disease and then cancer, heart disease number one, cancer is number two, and the primary way we treat heart disease in cancer is through the use of medications, but the third leading cause of death is the medications that we're using to treat the first two. How are we winning? How is that really truly even compassionate? What is the premise of the medication in the first place?

Now, there are some medications that cure. If you've got a rabid infection, an antibiotic can save your life, but for chronic autoimmunity, most of the medicines are symptom manipulators, and the side effects and the consequences of long-term use are profound and profound to the degree that it's the third leading cause of death. Let that sink in. Just take a moment and let that sink in. This is not me telling you anecdote, this is a published research from the British Medical Journal on this topic.

There've been a number of other published studies, the American JAMA, The Journal of American Medical Association published a review a number of years ago, I think it was 1998, with the same conclusion. This is not the first time this conclusion has been drawn. We've seen in some cases where doctors went on strike, I think there was a strike in California, and death rates actually started to go down because people weren't getting access to care, and it was actually the care.

Now, I'm not saying that the care your doctor is giving you is killing you. What I am saying is that if your goal is to get healthy, then you have to ask the fundamental question, is the medicine's goal to get me healthy? The medicine is not designed to improve your health, the medicine is designed to mitigate your symptoms. The only thing that can improve your health is you. The only thing that can help you improve your health is you making good, intelligent decisions consistently day in and day out. That's where the buck stops.

You have to look in the mirror and you have to ask yourself, are you doing your part? If you're not doing your part, that medicine may be prolonging your life. It may not be improving necessarily your quality of life, or it may be creating new problems for you in the process of that we know it's not the solution to the actual core reason that you have the problem.

Nobody developed disease as a result of medication deficiency, it's never happened. It's not a real thing. We also know that many medicines affect the gut, and just like we were talking about earlier, your medicines could be cross-contaminated with gluten, get them checked. Your medicines may also affect and impact the way that your gut functions. Many medicines cause leaky gut, for example, steroids and non-steroidal anti-inflammatories and PPIs, Proton Pump Inhibitors for antacid and heartburn. Antibiotics can cause leaky gut.

There are a number of different medicines that can have a negative impact on how your gut functions. If you're trying to recover from years of gluten-induced gut damage, the medicines may be part of your plateau point; may be part of why you're not fully responding to the diet. Again, I can't make that decision for you. You have to make that decision with your prescribing doctor, but you should go to your prescribing doctor with this knowledge in hand, again, so that, basically, it puts an intelligent conversation on the table that you can have or you can investigate this.

The diagram I'm going to put up on the screen for you, and we'll put a link in this video as well underneath this video where you can access the full size of this diagram. You can print it out with references intact and take to your doctor because if you're on any of these types of medications, remember medicines can affect your gut, they can affect your liver, they can affect your taste, they can affect your ability to produce saliva, they can affect your digestion, they can affect how your pancreas produces enzymes. Depending on the class of the drug and these untoward side effects that it might have, you just want to be aware of those things so that, again, you can make a good decision about what you want and need to do.

Using an example, I'm going to put another slide up on the screen I want to show you. This study was done, it was published from the Mayo Clinic Proceedings in 2012. The conclusion was there's a type of drug called olmesartan. They say olmesartan may be associated with a severe form of spruelike enteropathy. What does that mean, spruelike enteropathy? Sprue is a form of gastrointestinal flattening of the villi. There are three types of sprue that generally are talked about: there's tropical sprue, tropical sprue is a parasite, causes villus atrophy, there's gluten sprue or celiac sprue, which is where gluten causes the villus atrophy, and then there's just sprue, which is something other than parasites or gluten is creating the villus atrophy.

In this study, it was found that the blood pressure-lowering drug, olmesartan, which is in a class of drugs called Angiotensin Receptor Blockers or ARBs, if blood pressure medicine ends in artan, then most likely it's an ARB and fits in this category, that these drugs can actually damage the gut and mimic celiac disease. Since this study was published in 2012, there have been 107 more studies and case reports published in the literature.

You need to be aware of that if you're being medicated for blood pressure and you're on an ARB, and you've been told you have celiac disease and you actually don't maybe have celiac disease, but you have ARB-induced sprue, then you've got a different story or road ahead of you than maybe some of the other folks if you're watching. Maybe you have gluten sensitivity, but you also exacerbated it by taking that medication, and now you're not recovering as you're trying to go on your gluten-free diet. Again, this is a big class of medication. It's very, very commonly used, and you should just be aware that it can actually mimic celiac disease. Again, if you're going gluten-free and you're not responding, and you're on this medicine, this is where you need to go have a conversation with your prescribing doctor.

One of the other things you want to be aware of, aside from medicines causing gut damage, aside from medicines potentially mimicking gluten sensitivity issues, many medicines cause what are known as drug-induced nutritional deficiencies, meaning they impact your biochemistry in such a way that it leads to deficiencies of nutrients. As an example, it's very, very common for drugs in the anti-acid class of medicines, the PPIs, they can cause calcium, and magnesium, and B12 deficiency.

Remember what we said earlier, if you rolled over a nail and puncture a tire, you take the nail out of the tire, you can take the gluten out of the diet, but the tire, the damage is still there, and to heal the damage requires vitamins and minerals and nutrients. If you're on medications that are robbing your body of those vitamins, minerals, and nutrients, you also might be hitting a roadblock in your recovery because the medicines are creating the roadblock because they're causing the nutritional deficits.

I put a picture up on the screen for you of a really nice handbook. If you have a really great relationship with your doctor, buy a copy of this book and take it in to your doctor and say, "Look, I want to do a full drug-nutrient depletion review with you" if you are on multiple medications, and let's get you in there so that you can figure out where your risks are in terms of vitamin and mineral deficiency so that you can be better supported on your journey to better health.

Okay. That wraps up module four, folks. Thanks for sticking it out with me. I know that was a lot of information I just threw at you in a very, very short period of time. Stay tuned for module five, where I'm going to break down how you hit the grocery store, how to stock your pantry, how to clean out that refrigerator, and how you can travel and still stay gluten-free. We're going to be talking about how to deal with stubborn family members. We're going to also be talking about everyone's favorite topic, what alcohols are safe on a gluten-free diet? I'll see you in module- [sound cut]

[01:15:40] [END OF AUDIO]