

Recovery International

“Lifestyle and Nutrition as a Missing Link in Mental Health Care”

By Tina Musselman, The Pointe

Accessibility Video Transcript

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The following is a transcript of the audio from Recovery International Lifestyle and Nutrition as a Missing Link in Mental Health Care. This transcript is provided to improve accessibility for visitors who are deaf, hard of hearing, or prefer reading the content.

Transcript

So, I just want to introduce Tina. I just want to first say a special thanks to the Peace with Eating group, a special focus group, because they brought this program to us. Tina Musselman is a licensed professional counselor and registered dietician specializing in whole-person wellness. She's the founder of The Pointe, a nutrition and wellness practice helping overstretched adults reconnect to their health without overwhelm. For over two decades, she has been known for combining evidence-based care that connects the mind and body while encouraging people to take action over time. She works hand-in-hand with therapists and other health care professionals to enhance clients' outcomes.

Yes, I am a dietitian. My dietitian hat is always first. I've been trained in functional nutrition, functional medicine, weight loss, and obesity care. I'm working on some menopause certifications right now or pre-menopause. And then I'm also a licensed counselor. And I became a licensed counselor because very early on in my career back when I was in my 20s, I noticed a pattern that was happening over and over again - is everyone was coming in and saying, Tina, I know what to do. What is wrong? Why can't I do it? You know, so very often it's not lack of knowledge that leads us towards a path that may be unhealthy. It's that consistency to apply it over time can be very difficult. And so that's why I went on and pursued my master's in counseling, to really help people bridge the gap between knowing and doing. And at the end of the knowledge portion of this, we're actually going to do that together as a group. So you're going to formulate your own plan. I'm going to use some of the strategies that I use with my own clients when we talk about planning and goal setting and things like that.

Okay. So, this kind of brings us back to if you remember maybe high school psychology or if you've taken any, you know, bachelor's classes, this is usually in Psychology 101. And it's called Maslow's Hierarchy of Needs. And what we say is that until the bottom levels are filled up, the top levels can't necessarily happen. Okay? And why I love to call this beyond talk and meds is because we have our medications, we have our talk therapy, but there's the day in and day out of what we do that really can make the biggest

difference. And you may not get that type of structure guidance working with either a psychiatrist, an MD or a counseling professional. So that's where we come in as dietitians. We work on like if we look at this here, your basic needs are air, food, water, shelter, sleep. Okay? Like that's the base of the pyramid. But when we come in with talk therapy, we tend to go up here into the psychological needs or we're trying to, you know, look at purpose and meaning in life and we get into more existential, you know, thoughts, which is more up here in self-actualization. And if we if we truly look at this work, we can't reach the top without doing the bottom. So, if you are someone who happens to have diabetes or even pre-diabetes and you don't know it and your blood sugar's all over the place. You may not have the mental capacity to process everything you're talking about in session. Or your cortisol's spiking creating some of that anxiety. Right? So, the base of the pyramid is really where we work as dietitians and where we help our clients. We make small consistent changes over time, right? So, the goal from today is not going to go like overhaul your whole entire diet. It's going to be like what are a couple things that you can start with and really work on mastering them.

I'm going to pull up something I actually sent to a client yesterday. Hold on. I have to get out of my junk because I deleted it. But now looking at this, I'm like, this is solely pertinent. So, I don't know if you know that Trevor Noah does have ADHD. And he talks very well about his experience. I sent this to my client - she's struggling with ADHD she's struggling and she got that diagnosis working together - well into her 40s. She had a PhD, very high achieving female but really frustrated that she can't execute. She can't get her eating down. She can't get her sleep down. We can't really get her moving. But this was a post I sent her yesterday. It says, "If we let our brain slip, we're in danger of losing control. This is about cynical thoughts and rumination. Do the hard stuff. Run, eat your vegetables, get to sleep early." Like that's the foundation of his treatment for, you know, his ADHD. And the anxiety and the depression that can ride along with that. And that's not the only, you know, person who speaks fluently to about it. And then I also have learned the same with my own experience, as well. So that's where we work.

So now let's get into the nitty-gritty, like why do we want to focus on that base of the pyramid? So, we're going to get a little sciency. This is where I geek out. Sorry if I get on my podium a little too much, but I'll do my best. I love to break this down and explain it. So, we're going to talk about the brain and we're going to talk about the gut. And we're going to start with the brain first. Okay. So, this is the brain. The brain is 60% fat. So, the brain, you know, we can measure brain waves because we measure electricity in our brain. Just like the electricity in your house, you have to insulate it so it doesn't cause damage or short circuit. The way our body insulates our neurons is with fat and it's called the myelin sheath. And that insulation of our each and every neuron is 70 to 80% fat. So, one thing I tell my clients is if we eat junky fats- think about you know fried foods, think about lard or Crisco or I won't go into all the oils, but there are some inflammatory oils out there or we're not getting enough fish. We'll talk a little bit about fish. But I tell my clients if we eat junky fats, we think junky thoughts. Because if we're taking in like if you go somewhere and there's fried food and they turn that fryer off at night, or if you've ever seen like a grease dumpster behind a restaurant, I used to walk past them all the time when I worked in the hospital. Those things are like they're really gross - grease dumpsters. But that's if it's solid

like that, it's solid in your body - it's solid in your brain. It's not liquid. It's not fluid. It's not conducive to your neurochemicals being transmitted very easily. Okay.

So, the brain also needs Omega-3 fats, which are the ones found in fish. So, we can only find good Omega-3s in the ocean. Even if flax seed tells you to have Omega-3s, most people are not very good converters of that. So, I do use fish oil a lot in my practice. I take fish oil. My kids take fish oil. And then the other thing we need, so just like if you have fat that let's say you leave a bottle of cooking oil in your cabinet for too long, you know how it gets that smell and it can get rancid. The fat in our body can get rancid and damaged, too. And one of the ways to prevent that or help your body clean it up is really to eat things that are full of antioxidants which are found in plant foods.

So, Jonathan, I think you were the one who mentioned a little bit about the ketogenic diet. You know, right now I have a lot of patients really focused on protein or they're like, Tina, what do you think about the caveman diet or the ketogenic diet? If you follow it strictly, it's hard to get in a high level of antioxidants to protect, heal, and repair your body. So, you really want to make sure you're getting in a lot of fruits, a lot of vegetables, a lot of color, reds, greens, purples, blues. Like, every single color has a different function in our body. So, they come in and they like clean up the damage, all those beautiful colors. Okay, that's what we call antioxidants. The cool thing about your brain is it's 2% of your body weight, but it uses 20% of all the energy you burn in a day. And it uses 25% of all your body's glucose, which is the sugar that travels in our blood. So, it's a very hungry organ when we compare it to the rest of the body. It's a very metabolically active organ. The one that's next to the brain would be your liver. So, a lot of people don't realize like too, they think if I go to the gym, I'm going to burn a ton of calories, but you're still not going to burn what your brain burns in a day just simply by going to the gym. It is an energy powerhouse, if you will. So, that's a little bit about the brain. Oh, we're going to talk a little more, but that's some of the basics in terms of the structure.

So, here, I know it's a little hard to read and I apologize about that, but this is how one chemical in our brain is made. And I want to give you the appreciation for how important nutrition is for our thoughts. So, this is how serotonin is made. So, tryptophan that's that one that everyone's like, "Oh, it's Thanksgiving. You know, you had tryptophan in your turkey." Well, it's actually not the tryptophan that causes the sleepiness, it's the mashed potatoes. So, tryptophan can't cross our blood brain barrier by itself. But when insulin goes up and glucose goes up from the carbs in the meal, now tryptophan will cross easier into the blood brain barrier. So, it's more the carbs that make you sleepy than the tryptophan per se. So, everything in our body has to go through a multi-step process. So, this is how our body takes the raw ingredients for serotonin and makes it. But if we look here, look at we got vitamin B6, vitamin B3, zinc. Zinc is involved in over 200 different reactions in our body. Folate, magnesium, vitamin C. There's more zinc, more folate. There's iron. So, you know, a lot of my patients, I work with them on really getting good iron screening because it's involved in depression. It's involved in, you know, anxiety. If you can't give oxygen to your brain, you're not going to think right. You're not going to like your brain's going to be anxious trying to wonder where its oxygen is at. So sometimes very basic

nutrition and health screenings, we can, you know, really turn over some stones and find some things that can help. Same thing B6, magnesium, vitamin C, and copper. So, you can see just how much nutrition is involved in one chemical in the brain.

So, this comes from my own genetic report. So, I mentioned I was diagnosed with ADHD at 44. And part of the reason I got that test - because I didn't believe it when they said, Tina - it was a therapist - she goes, "I think you have ADHD." And my answer was, "No, I don't. I'm a high performer. I don't know what you're talking about. It's just a very typical high performing person, right?" I said, "No, and I don't have anxiety. I'm a high performer. I don't have that ADHD. If anything, I'm like my husband's side of the family." He doesn't have it. I do. And I'm pretty sure my dad had it now that I'm looking back. My dad was the type of dad that come like, "Surprise, I bought a car." Like his impulsivity was just really off the off the roof, if you will. But my father passed away of cancer. My mother passed away of cancer. We knew what my mother's cancer was. My father, I never would have guessed in a million years he had cancer because he had diabetes, he had peripheral vascular disease, he had cardiovascular disease. Like, I never would have put cancer on it. But we never found out what my dad's cancer was because he died 3 days later. And because he was on a blood thinner, we could not get a biopsy to figure out what his cancer was. So, I freaked out and I'm like, "That's it. I'm ordering my whole family a genetic test to see." And I just ordered one my friend orders for her clients. I'm like, I'm going to do this one. Julie's smart. I'm going to order this test. And it wasn't the test I was looking for because I was looking for ones that screen for diseases. And this one, this one does. But what came back blew my mind and it's what led me down the path to really looking at ADHD as a diagnosis for myself.

But this test, it's called 3x4. It's 3x4 genetics. I do order it for some clients for a wide range of reasons. But one thing I found when my genetic report came back is I have something called a Fast COMT gene or it's called a "warrior gene." So, what this means is my brain has a genetic variant where I break down dopamine and other neurotransmitters quicker than other people. So, when there's a lot of drama and my brain and my body are pumping out adrenaline, I am laser focused and I'm so good at rising to the occasion. But when nothing is going on, I have no neurotransmitters left. Like, I am bored out of my mind and my bouncy brain comes back. So, that's what I learned with this. And that's why I also I'm like, I think I have the gene. I'm going to go get tested. But this is my genetic report. So, I took screenshots.

So I have this Fast COMT gene and what it says I have to do is I have to take adequate magnesium. I have to take enough B2, B3, B because this test only tells you lifestyle variables you can modify. The one the test that I happen to take. Support your gut health, support your adrenal function. Nrf2, that's like resveratrol can help with that. Sulforaphane is like if you ever heard like eat broccoli to detoxify. Reduce alcohol consumption right there to help with your B vitamins, right? That's what the head of AA knew before anybody else. Be cautious when recommending high doses of some vitamins. Stress management is paramount. So, you can see caffeine like I'm a very slow metabolizer of caffeine. And then it's also here in my genes. So here support dopamine with regular physical activity. Creative exercises, adequate sleep. So, this just blew my mind and that's kind of like just to show you how

important behavior, lifestyle and nutrition are involved in one genetic variant. You know this one was mine. I have multiple but this was one genetic variant.

Okay. So this was a study. This is a great study. You can research it. The lead researcher, she's been on some podcasts. This, if you see at the bottom, says Jacka et al. She's I think from Australia if I'm correct. But this was called the Smiles Trial. And the Smiles Trial looked at major depression, major depressive disorder, which is so important. We're not talking mild depression. So, it was moderate to major depressive disorder. And they took the groups of people and they randomized them, which means this one couldn't be blinded, and you'll know why in a minute, but they were randomized to either what was called "chitchat therapy", like, "Hey, how are you? How's the day? How's the weather?" It was just like social connection. The other half got put on a "Mediterranean diet" with a dietitian. Medication stayed the same. Their regular therapy stayed the same. No other variables were changed. And it went for 12 weeks. Okay. And what they saw is depression. Now I'm going to use this word very like I'm going to really emphasize this remission. This doesn't say improvement. The study concluded remission of 32%. Okay. And the people who didn't get remission, they did get symptom reduction, and it was the more they changed their diet, the better improvement in depression. So, some people changed their diet a little, some people overhauled their diet. Okay. And this was following the Mediterranean diet which year after year is shown to be the number one diet for health and mental health. And then here their control group was 8%. So, it was considered statistically significant. And then they did a larger randomized trial with 152 people. And that one they added some fish oil or omega-3s in. So, this they have a whole website for the Smiles Trial. Really great research. And if you can hear the researcher talk, she speaks very well to this.

Okay, so there are a couple different diets out there that you may see related to mental health. The MIND diet is one of them that's out there. This one, I know it's a little hard to read. This is the Mediterranean diet, the one that has the people socializing and moving on the bottom. There's the ketogenic diet. So ketogenic diet since it was brought up - it has to do with fuel switching in the brain. So, most of the time the brain loves glucose but if we don't eat any carbohydrates because we will store glucose in our muscle and we will store glucose in our liver. So, a couple days of not eating carbohydrates your body will burn through its glucose stores, and we start making something called ketones. The body does naturally. So, we will go into something called ketosis which is your body making ketones. And then the ketones are an alternative source of fuel for the brain. So, the brain does know how to use ketones as fuel versus really relying on glucose. So, we call that metabolic switching or metabolic adaptivity. Some people do ketogenics diets once in a while. You know, they'll maybe do it a couple times a year for a wide variety of reasons, mental health being one of them. But that's what a ketogenic diet is. It forces our body to switch its fuel source and we start burning ketones instead of glucose.

Tina, there's a quick question in the chat before you get too far because I think it was pertaining to the slide before. How do you balance five to eight whole grains with low carb? You don't. They're two very

different diets, Jonathan. You don't. So, yeah, they're two radically different diets. So yeah, you can't you can't be that low carb and eat any grains to any significant level. And then I see one there on supplements. Tryptophan, tyrosine, 5HTP. Yeah, I could talk more about supplements at the end. There's a lot of stuff out there, but I usually start with the basics and I'll go over what the basics are that I start with and also some yeah, we'll get into that. I think that's a great question.

So, when we look at nutrition right so what I say is every time we eat, breathe, move, think, anything it is nutrition that makes it happen so anything you can like literally nothing becomes us other than what we put into our mouth right the sun doesn't make us, you know the air, well we have to breathe air right but nothing else becomes who we are other than our food. When I took biochemistry which is the science of how the body makes, you know, chemical reactions. The doctors and all that were sitting along next to us, but somehow they forgot biochemistry is all nutrition, right? You know, once they learn meds, that's forgotten. But yes, every single process in the body is governed by vitamins, minerals, proteins, you know, you name it. All of what we put into our mouth.

The funny thing about nutrition is we don't feel subpar levels. Okay? So, I even had a client this week. She's like, "I started this supplement and I don't what am I supposed to feel?" And I'm like, well, it's not going to be like a Tylenol or an Advil, right? Like, it doesn't work like that. Nutrition doesn't work like that. So, we don't necessarily feel subpar levels, but how people will present, if you will, when they tell me what's going on is maybe some low-grade apathy, low-grade pain, headaches, migraines, some GI concerns, a little high blood sugar, you know, not enough energy to make it through the day. Those are kind of the low-grade symptoms I think, as a country, a lot of people have come to accept this as normal, which are not necessarily normal. In modern life, in general, it does really deplete our nutrition. So, anyone who tells you like nutrition deficiencies are not a thing, it's not someone I would listen to. But if we don't eat well, if we don't sleep well for a long period of time, if we're not moving, if we're chronically stressed. Our stress glands sit on top of our kidneys and they will chew through B vitamins, they'll chew through vitamin C. So yes, we can be nutritionally depleted even though our serum levels look okay.

Okay, so some things I use with my clients are like I said, "eat junky foods, think junky thoughts." It's a great way to remember to just eat a nice good healthy whole food diet. Not one that's in a package, not one that's with a huge ingredient list. You want to avoid frying oils, added sugars, processed foods. So, here I put a little, it's so funny. So, I pulled this back in October, but I'm looking Karen Kennedy is someone I talk to all the time now. She's coming out with a book on, blood glucose, but dysregulated blood sugar, like when our blood sugar is going high and low, especially if it starts dropping, our body will make cortisol to bring up our blood sugar. So, just think about when you go to a doctor for pneumonia or, you know, something, they put you on steroids, you're hungrier, you know, your blood sugar is going to go so high when you're on steroids. And cortisol is a steroid in our body. And then it tells our brain to eat and crave more carbohydrates, too. So, if our blood sugar's going all over the place, we can have high cortisol at night and that will keep us up. Sometimes if I have clients waking up in the

middle of the night and they happen to have a blood glucose monitor, we can see those patterns on their blood glucose monitor and correlate that to how they're waking up. Or we can look at serum cortisol a couple different points during the day to see if that's not regulating their sleep or their wake sleep wake cycle very well.

And dysregulated blood sugar also causes adrenaline surges. Okay? It can impair concentration. So, we want nice, steady, stable blood glucose. And that's another benefit of a ketogenic diet is, you know, your blood sugar is not spiking all over the place because you're not eating carbohydrates. So, one way to know if something is a whole food, it's so easy. This is so easy, is you ask yourself, "does this come from God or nature, or did it come from a factory?" And if it came from a factory, it's more and more likely to be a processed food. And what I'm seeing now too with this protein trend is a lot of people are coming in doing like protein bars, protein cookies, protein shakes, protein chips, protein pancakes are not a thing. They're crappy pancakes with whey protein. But I'm seeing a lot of people use a lot of protein junk food and I have to keep telling them this is this is not healthy. I can't put this in the healthy food bucket, you know? But a lot of people are really relying on these foods right now. Here we have you want to choose diets that have omega-3 fats.

And there was a question about can you eat walnuts for fish. You can eat walnuts, but they're not going to be converted to the active form of omega-3s your brain and body need. So, they have omega-3s, but they have to go through several steps in order to be converted to EPA DHA. So, if you look at a fish oil or omega-3 label, you want it to tell you how much EPA and DHA is in there. But the way our diet's set up, we are not good converters to get the omega-3s out of like flax or walnuts or even canola oil has a little of omega-3 to convert them to a like the place we need. It's a little complicated but we share an enzyme and the enzyme also works on vegetable oils, soybean oils, corn oils which are very prevalent in our American diet and there's not enough enzyme to go make your walnuts do what they're supposed to do as the enzyme has to shuttle back and forth depending on demand. So, the best thing for omega-3s is to directly take an omega-3. Chia seeds, chia seeds are a great fat. Go slow, but same thing, it's not a seafood source of omega-3 where you're going to get those active components. So, yeah, I use chia seeds. They're great for fiber. They're great for satiety. They're great for a lot of reasons, but go slow. If you're not used to fiber, I'll show you in a moment, you might be unhappy.

You want to choose diets that are high in plant foods, okay? With a wide variety of color. We talked a little bit about those antioxidants. And then do not drink any calories that have sugar. Just no. No pop, no juice, no those put you on that blood sugar roller coaster and it feeds your bad gut bacteria that we're going to talk about in a moment. And a good guideline, two good guidelines to look at might be, you know, whatever you're having for lunch and dinner, just make half your plate vegetables. So, if you still want that burger, I don't care. Just make sure half your plate is vegetables. If you don't have time to make anything but a frozen pizza tonight, which I made last night, half that plate has to be a salad or some sort of vegetable. Use that as a guideline of like, okay, just get my vegetables in. Where's my vegetables? Where's my vegetables? And then if you've ever seen the Blue Zones, there was a Netflix

documentary. There's a great book, but the Japanese have this term called "Hara hachi bu" which means eat until you're 80% full. Don't go to being stuffed.

So, let's switch gears and go to the gut. I see a question here about Ensure or Boost. So, I will use those in certain circumstances. Just get the ones if you can without all the sugar. Some of those are really, really high carbohydrate. They have high fructose corn syrup. I mean, now there's Intragrain Max, which is a protein shake, not necessarily a high carb one. So, you want to be judicious and very strategic. Like, I have protein powders at home. I use the powders, I don't use the ready to drinks. But I do use them like in some of my clients who are on weight loss medications or my bariatric surgery clients or if I have someone really struggling to meet protein goals, I'll give them an Ensure protein max. But there's a lot of other brands other than Ensure that are cheaper for us to get in protein. So, I think it will come down to like a taste preference to be honest.

Okay, so moving into the gut. Okay, and I'll see if we can double check time here. I know I can talk a lot. Okay. So the gut. So one thing I want you to notice are these pictures here. Hopefully it's on the right side of your screen. Just look at how much the brain and gut kind of look alike. The folds - like they look so similar. So similar. The brain and gut. And actually our gut, our GI tract, has its own entire nervous system. We call it the second brain and it's called the Enteric Nervous System. So technically if you are decapitated, the GI tract nervous system can work entirely on its own. Okay. It produces 20 different neurochemicals your Enteric or gut nervous system and it produces about 90% of your body's serotonin. And not that that serotonin goes systemically or up to the brain per se, but it does play a very important role. But the majority of the serotonin in our body is not a neurochemical up here. It's a neurochemical in our gut. Okay. The Enteric nervous system has five times more neurons than your spinal cord. It's very very big. And it is 26 feet long your GI tract. It's really long. So we have to take care of a very long muscle to coordinate it all digest absorb break down our food. Okay. And then on top of it we have two to three pounds of bacteria in our GI tract. And that is pounds. And when we look at all the organisms living in us and on us, there's more things living in us and on us than we have our own human cells. And believe it or not, those bacteria in your gut will also dictate mood. So, like we were talking about all those colors, right? The reds, the blues, the oranges, the greens. Believe it or not, the bacteria eat those. They eat the color. They eat fiber that we can't break down. And I'm going to show you how. But the bacteria communicate directly to our brain. And the bacterial byproducts, so their metabolic waste, become our food and chemical messengers in our body. So, we have a very symbiotic marriage with these bacteria in our gut. And if we eat a highly processed food diet, we feed the bad bacteria.

But here the microbes in your gut also produce GABA. So, like my son, he's also on a medication with his ADHD that helps boost his GABA in his brain. Um, butyric acid, serotonin, dopamine. And I'm going to show you how and why. So, we have this Vagus nerve. Some of you may have heard of the Vagus nerve. You guys might have even covered it in some of your sessions. But the Vagus nerve from a counseling or therapy standpoint has to do with like fight flight. You know, there's polyvagal therapy, if you've ever heard of that, that has to do with this Vagus nerve. But the Vagus nerve is even though it's two

branches, one goes down your right side, one goes down your left side, it is the biggest nerve in your body and it innervates your major vital organs. So, it comes out and innervates your lungs, your heart, your liver, your spleen, you know, your stomach, your GI tract, your kidneys. And we used to think this nerve talked top down that it was always, you know, for the most part sending signals down from the brain to your abdominal area and all of our organs. But we've learned it is 80% bottom up. So, 80% of the time it's receiving feedback from your heart, receiving feedback from your bacteria, receiving feedback from your kidneys, from your adrenal glands, and sending those messages back up to the brain. So, it's not top down, it's bottom up. So, if you've ever worked with, let's say, a therapist that has told you like, okay, to regulate, I want you to breathe, right? It's activating this Vagus nerve. Singing, the vibration here in your throat, because the nerve like I'm touching mine right now goes down along here like that'll help tone the nerve.

So, one of the questions I know I got was about IBS, you know, and low-FODMAP diet. So low-FODMAP diet - FODMAPs are a type of sugar that bacteria can digest and eat if you will but their byproducts cause GI symptoms. So, we don't want to feed this bacteria so we don't eat these foods that contain these types of sugars. It's a very restrictive diet. And it's not one that I use ever and I'm not saying there's no benefit. There's a lot of research on a low-FODMAP diet, but usually when I see people, they have tried everything and then they come to me. So, it may work for other people, but they're not the people showing up at my door. So, there are usually other things I work on with people. You know, we could do some GI testing, like I could do like stool testing, but sometimes I just start with sitting down in a calm environment, chewing your food, doing vag nerve exercises throughout the day. There's a lot of things we can do to turn to tune that nerve so that way the 23 feet in our GI tract can coordinate really well.

Okay, so that's our vagus nerve. So you can see how and why they're connected. They are like, you know, so we got our bacteria, we got our brain, like everything is just so connected here. So, I put here for you. So, here's our GI tract, right? Our emotional system comes in down there. So, we have our whole enteric nervous system. We talked about our two to three pounds of bacteria in our gut. That's our microbiome. Most people don't know that 70% of your immune system sits right around your GI tract, 70%. So, that's why if you hear someone has Hashimoto's or autoimmune, they may try eliminating certain foods because it's we want to calm down that immune system. Because 70% is right outside your GI tract, making sure nothing foreign comes into the body. And then you can imagine, too, if we had bad bacteria, that immune system is getting triggered all the time.

And then, last but not least, the outside world is also part of our GI tract. So I'll never forget - I mentioned I used to run a surgical programs for 18 years. So, I saw a lot of endoscopies and surgeries and things like that. And I was in an endoscopy suite and I was like, "No, no, no, that's not sterile. That's not sterile." And the doctor I work with turns around, he goes, "Tina, this is not a sterile environment." And I was like, "What are you talking about?" Like thinking it was like an operating room. He goes, "Nothing in your GI tract is sterile because the outside is, you know, your mouth is connected to the outside world and we're eating food all the time. That's always contaminated. And our outside is also connected to the

outside world." So literally the outside world comes together. Your immune systems right there. Your microbiomes are there. And your whole nervous system like it all comes together in the gut. So, a lot of times we'll see you know mental health concerns go hand-in-hand with GI concerns, and I don't know if it's a chicken or an egg, right? Like does the GI concerns start first and start some mental health concerns or is it the other way around? But I do know once it starts it's a very hard cycle for people to break. Right now, I have a couple young women with severe anxiety, severe school anxiety, but they also have a history of very debilitating GI symptoms. But it becomes a cycle that's very hard to break because it all comes together in the gut. So, hopefully I gave you a little bit of an appreciation.

Okay, so what do we do for our gut? So, one is, and I'm going to say this with a caveat, we want to eat a nice high-fiber diet. But if you are not used to eating fiber, go slow. I'll never forget my first patient that came in and she was like, "Tina, you told me to get all these vegetables and fruits and my stomach feels like it's out to the wall and I hate it and I don't want to eat this stuff anymore." Because you don't digest fiber, but the bacteria in your gut do and they will have a party if they get a plethora of food that you've never had before. So, go slow. That's why when Jonathan put here about chia seeds, same thing. I've had people go crazy on chia seeds, end up with raging diarrhea, raging abdominal distension. Like, go slow. Go slow if you're not used to adding fiber. Okay. But fiber is so good. And that's one of the things when we look at that Smiles trial is it helps with depression because you're feeding the good gut bacteria. And fiber also starts to slow down the absorption of carbohydrates and it helps with appetite and it helps with satiety and it helps with reducing hunger between meals. So it's really great for weight loss and those type of things, as well. Okay, just balance everything out so we don't get these highs and lows with our with our eating.

You want to eat a wide variety of plant foods. So, we talked about the two to three pounds in our gut, right? So, with the 2 to three pounds, the more variety you eat in terms of color into how many plant foods, like if you get mixed nuts, like that's four or five right there, right? But the more diversity in your diet, the more diversity in our gut, which is what you want. You want a really nice diverse community down there. You want a good community down there. Another thing is fermented foods. So, kimchi, kombucha, vinegars, sauerkraut, like I'm thinking about those vegetables. I don't know what it's called. Like if you go to like a good Mexican store or Mexican restaurant, they have those really nice like fermented carrots and vegetables. That stuff is so good for you because the fermentation or prebiotics that feed the good bacteria in our gut.

And then the next thing is stress perception and management. So, the gut is very sensitive to mental and chronic stress and perception. So, one of the things I tell my clients is if your mind feels like it's running a marathon, even though your body is sitting here, your body is running a marathon, too. Your body does not know the difference. So, one of the things with prolonged chronic stress is we'll see suppression of your gastric secretion. So, suppression of digestive enzymes, suppression of stomach acid. We lose the barrier, the mucosal barrier in our GI tract. I know it sounds a little violent but like poking holes in your GI tract. So chronic stress will really take a toll in our GI function, our microbiome. So yeah, so we want

to make sure we really do a lot of great therapy, stress management, mindfulness, and we're going to get into exercise in a minute because that's very helpful for all of this. So new therapies for restoring gut health, fecal transplant. I'm not going to get into fecal transplants right now because I don't do them. I'm not a doctor. I've heard the research, but I can tell you this is I have clients that take probiotics and I am not a fan of taking a high dose probiotic for a very long period of time only because of what I just said. You want diversity, okay? And you want to create an environment even if you do get a fecal transplant that is hospitable for the good bacteria to stay there. If you say, "Oh, I'm going to take a probiotic, but I'm still going to eat all this sugar." You're not creating an environment for those good bacteria to stay there. So, it has to be twofold. It's exposure to the bacteria, but it's also we have to make it welcoming for them to stay there and really have a nice community.

Last but not least, we will get into movement and then we'll have a couple minutes for you guys to start formulating your plan. I think it was Seth, if I remember correctly, who said, "Yeah, movement was a huge help." So, I did not know the importance - I mean I knew the importance of movement right I've been a dietitian for 22 years now for a long time - but even as a therapist I did not know there was fight, flight and there's something called freeze. I was at a very low point in my life it was during COVID my mother had just passed away, we had to move for my husband's job, it wasn't for a negative reason. I was running a surgical program during COVID which let me tell you what good times that was. How much I got yelled at. But it was very stressful and I crashed when it was over. I just crashed. I couldn't get out of bed. I thought I had an autoimmune condition. I was in pain. I was angry. I was snapping at my family the whole time. So, I would just shut myself in a room. I am no good to anybody.

And there's this wonderful podcast if you search Brené Brown "Burnout" and there's a book called *Burnout* by sisters Emily Nagoski, PhD, and Amelia Nagoski, DMA. But that was the first time I heard about something called freeze. And freeze is a shutdown. I was frozen. I was stuck in the frozen state. I was running on adrenaline, you know, I was go, go, go. I was once again with my ADHD, I was rising to the occasion. But when it all stopped, when life became normal again, I crashed. So that's where I really started digging into this research and learned this part of it. So, emotions literally mean to move. That's what an emotion is. It's a signal to your body to physically move. But when you're stuck in freeze or we're sitting at our computer aggravated because we don't like our job, right? Or we're ruminating about a conversation we had with our brother, our aunt, our mother, you know, a neighbor today, whatever it may be, we're not moving. So, you can see even with our good emotions, we are prompted to reach out, hug, high-five, cheer, yell, scream, shout, right? So, this is not just about a negative emotion, right? All emotions tell us to move, to do something physical with our body, but we don't do that anymore, especially with our negative emotions. Or are you scrolling at social media at night getting aggravated before you go to bed, right? Which is intentionally meant to trigger your most extreme emotions at social media, right? But emotion means to move. So, what you were saying at the beginning of the call is so accurate, right? A lot of times with my clients, we talk about how do you discharge the emotions so it doesn't turn towards food, so it doesn't turn towards social media, so it doesn't turn towards something unhealthy.

So, when I was recovering and trying to get well, I'll never forget, I called my therapist and I was like, "Oh my god, I just heard something and it's so simple and it's so hard." She's like, "What?" I'm like, "It said, if you're living burnt out, stop living your life like you're on fire. If you're living burnt out or if you're feeling burnt out, stop living your life like you're on fire." And I wasn't physically on fire. I wasn't running everywhere, but my brain was on fire all day long. My thoughts were on fire and I was burnt out. I shut down. So, I would pull myself out of the house at 9:00 at night, 9:30 at night. I take my therapy sessions walking outside. I learn tapping. My neighbors must think I'm nuts because I'm either like if I get emotionally charged, I will walk and tap and my answers always come to me and then it's gone. They'd probably see me walking and crying in my neighborhood a dozen times. Probably like, "There she is again, December out in the cold at 900 PM walking and crying." But it is so darn effective. It is so effective to do anything physical to discharge your emotions. So that way it doesn't become pumped up and go towards something negative or we go to total shutdown and burnout.

So, Darwin observed that the fundamental purpose of uh motions emotions is to initiate movement that will restore the physical body to homeostasis. That's what that is. Physical activity tells your brain that you've successfully survived the threat and now your body is a safe place to live. So, you know, going to what you guys have brought up about some of maybe the emotional eating or food struggle or food thoughts. One, we may never be able to get rid of food thoughts. You know, right now, I have a client, she says, "I think about food all the time." She's 70 and I said, "Well, the thoughts we can't maybe get them to fully go away, but there are times when the thoughts aren't there. So, we're trying to focus on the time that the thoughts aren't there." So, she starts noticing that she's not thinking about food all the time, you know, but we're using Do a crossword puzzle. Do crafting. Do something physical. Don't pull out your phone and scroll if you're trying not to eat. But physical activity is one of the single most efficient strategies for completing the stress response cycle. And the book is *Burnout: The Secret to Unlocking the Stress Response Cycle*. Fantastic book. And that interview with Brene Brown with those ladies was changed my life.

And so yeah, now I can notice like I dislocated my ankle a couple years ago and I was like, why am I angry? Why am I crabby? And it was because I couldn't move. You know, so once you start doing these patterns or you start recognizing these patterns, you can start catching yourself and be like, "Oh yeah, I didn't walk. Oh yeah, I didn't go. Oh yeah, that's right." And then you can start doing something about it. But there's a learning curve, you know, just because you get off the call today, you're not going to be like, "Oh, I'm so excited to go work out." Right? So, we'll put a plan in place here.

So, this comes from burnout, too. The stress itself will kill you faster than the stressor will unless you do something to complete the stress cycle. And what they say too is emotions are like tunnels - there's a beginning and a middle and an end. And you can complete the emotional cycle without fixing the problem. So, you don't have to fix the problem to get physical and emotional resolution at that moment. Physical activity is anti-inflammatory. It helps with those blood sugar highs and lows. It helps with sleep, but it is honestly - even compared to food - it is the one thing - if we look at one thing that improves

health the most - whether it's physical health, mental health, emotional health, it's physical activity in any way you can get it in. Some days I go slow, some days I work out hard. It just depends on how I'm doing, but I always try and get some movement in.

Okay. So, how do I teach this to my clients? Strong body, strong mind. Move your body, change your mind. You know, I use those things a lot. If my mind gets stuck on a decision, you know, let's say it's a work decision or a business decision or a family decision, I'll usually if I start moving, the answer will come and then I can just start pounding out decisions like that. So, it's a practice. You learn how to use it. All movement is good movement and anywhere from 150 to 300 minutes per week. And if you can get in two days of strength training, that would be wonderful.

Any questions? We'll do a I'll do a couple minutes here to have you guys kind of work out your plan. So, okay, I see a lot of you taking notes. So, now this is me is if we were in a group nutrition therapy class, this is a little bit of how I would teach it. Okay, so look at your notes or think about anything we talked about, right? Or any should dos - I should do that, I should do this, I should go get groceries, I should cook dinner, I should whatever the shoulds are, right? Take a minute and I want rapid fire writing. I don't want you to think about it. I don't want you to analyze it. I don't want you like this is like third grade. Write all your thoughts on a piece of paper. Okay? Write down all the things you quote unquote should do to improve your health as fast as you can. Just write. So, okay.

So, now what I want you to do is look at your list to look circle the top. Okay. So, here's how I do this with my clients. Look at your list. Circle the three to five easiest things to start with where you're like, "Oh, yeah, that one's not so bad, I can do that. Because what most people do is they try and pick the hardest feeling like it will move the needle the most. So, I think we all know the cycle of like I'll start again Monday, you know, and on Monday I'm going to fix my finances. I'm going to clean out my cabinets. I'm gonna do this. I'm going to do that. I'm gonna meditate. I'm going to go to sleep. I'm gonna get my water. Right? And then at the end of the week, we don't do it anymore. So, think about what are the easiest things to do, not what is the hardest. Because what I like to do, and I think it's very aligned with you guys, Angela, is I want to get some wins. It's more important for you to feel successful and that you can start trusting yourself again versus trying to take a big leap. And everyone can relate to that because we have a "Do things in part acts or one step at a time" and you know "Endorse for each step that we do." So, this is all very familiar and I love that you're saying little things take the quick things. Yes. Only because I mean I sit with the frustration.

Okay so out of your top three to five I want you to answer this question. What can you say, Tina, with 99% confidence I could do that one? And it might be two, but what are you fully confident in that? You know what, Tina, with 99% confidence, I know I can walk five minutes a day. I know I can eat a piece of fruit a day. I know I cannot put sugar in my coffee. Whatever it is, right? 99% confidence you can do it. Don't pick the one that's like pushing a boulder up a hill.

And then the last part is when your mind tries to talk you out of doing that thing - and everybody has that voice in their head – “I'll start again tomorrow. Oh, I don't feel good enough today. Oh, I don't know. We just talked. Oh, I don't have the right groceries in the house.” I don't have like your mind is always going to try and talk you out of it just like it did before, right? And we use this thing and, Angela, jump in if you guys use this too about behavioral activation. So behavioral activation is we do it anyway. We say, “Thank you so much mind. You've been my friend for a very long time trying to protect me and talk me out of doing things, but you're going to take a seat back there and I'm just going to do it anyway.” And maybe I think what comes to mind for me is our tool that says wear the mask, right? We're just going to like put that aside. We're going to kind of fake it if we need to and do what we need to do anyway. And I'm sure there's many other tools and you'll see them popping up in the chat here in a second. I love that part of the sabotage we do, right? I mean, this is all so relatable. We have a CBT based program, so what you're saying is really resonating with people. Well, because when I function as a dietitian, I can't do like therapy like I would normally do therapy and go like is I can't have a dual role. So, I don't go into people's deep dark paths, you know, to do nutrition. So, we probably do use a lot of the same tools, you know, but we do it anyway.

And then there's one final piece and, Angela, I'd be interested to see if you guys have the final piece - is you acknowledge your effort. Yes. Endorse for the effort. That is huge. This idea of self-endorsement that we teach in this program is, I think so odd for people, because you grow up waiting for someone else to say “Good job, Tina. Hey well done, Angela.” But why wait? And so, this program really enforces/reinforces the idea of just say “Hey you know what, pat on the back. Everyone, take a moment right now you're here by the way self-endorsement for being here and for participating and for writing your list right there's so many things we can all endorse for right now.

Your brain is hardwired to look for the negative two and a half times more than the positive - that's neuroscience. We are primed to look at the negative things. So, what that looks like to me as a dietitian is my client will show up and say, “Tina, I didn't do this. I didn't do this. I didn't hit this goal. I didn't do this. And you told me to work out five times. I worked out three times.” You know, and they want to tell me everything that went wrong. And I'll say, “Wait, wait, no. You worked out three out of five days. Tell me how you made the three happen because before you were zero, you know, but they're going to tell me they failed at everything.” But I'm like, “No, no, no. You did something right.”

So, but what acknowledging your effort does - and every day I write down - I call it the what went well today practice. It's from positive psychology. You can call it a gratitude practice. But every day I write down five very specific things within the last 24 hours that I want to acknowledge or be grateful for or at least give like a moment to. And that's the hard wire and I use it for business because as a business owner I can go doom and gloom very quick because like big medicine on TV there's big nutrition companies out there too. You know, and you can get doom with gluten very quick, you know, just like anything in life. So, I have to sit there and be like, “Nope, I did this today. My kids did this today. I did this.” And a lot of times it's like, I wanted to eat out for dinner and I cooked dinner, right? Like we didn't

eat out. So, you know, this is a practice when I want movement in my life, I always take this practice to the forefront and I physically write it out every day. So, yeah, hopefully this really helped you guys out. I enjoyed myself today.

Now Fran wants to conclude with a few words and I'm going to put something she's talking about uh a link in the chat. Go ahead Fran. Thank you, Angela. First of all, Tina, thanks for all the valuable information and connections you made for us. It's just great to know this. For those of you who would like to share examples about any nervous symptoms related to eating, please join the RI special focus group, Peace with Eating. We meet on Zoom Saturday afternoons at 300 p.m. Eastern time, which is 2:00 p.m. Central, 1:00 p.m. Mountain, noon Pacific. All examples given concern behaviors or symptoms around food, shopping for food, cooking, anxieties about eating or not eating or eating too much and more. Peace with Eating group participants are supportive and non-judgmental and they share useful information and coping skills. You are welcome to attend and observe to determine if it can be helpful to you. And, Angela, is putting the link in the chat to register and join the peace with eating group. And thanks to everyone for coming tonight. I'm very proud of this presentation. I think it was very valuable. And thanks to everyone. Thank you, Tina.

Thank you for having me. This was a great way to spend my Tuesday night. So I appreciate it.

Tina, thank you so much. Can't thank you enough for doing this. We're happy to say people are awesome and fantastic but in our program, but we can say you're high average. So, we will leave with that. Very valuable, really engaging and thank you so much for being here. And I will get this link out to everyone because there was a lot of information. You might want to watch this again. And anyone's welcome to email me. I did just to brush up, right? And Tina had her email in there. I'm happy to put that in when I send out the link for the video as well if you want to connect with her. Thank you so much everyone. Have a lovely night.

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Accessibility Note

This transcript is intended to accompany the audio recording so that all visitors have access to the same information in a text format.