

Caspar (00:00):

An unhealthy gut can disrupt every aspect of your life, causing conditions such as fatigue, bloating, brain fog, food allergies, weight gain, and many others impacting both mental and physical wellbeing. Today, our guest is a doctor of pharmacy, functional medicine practitioner and founder of an institute dedicated to revitalizing gut health. She has consulted thousands of patients and practitioners globally, developed probiotics and nutritional products, and advocates that a healthy gut is the cornerstone of overall wellbeing. This is the Story of the Gut Goddess with Dr. Grace Liu, Dr. Liu. So have great to have you on.

Dr. Grace Liu (00:39):

Thank you so much for having me, Caspar. It's been, it's a joy. I can't wait. Thank you so much.

Caspar (00:43):

You know, gut goddess, gut institute, gut, everything, right? It's, it's all about the gut, but has it always been this way? Let me start with that, because we actually, right before we jumped on, we're talking about how prevalent gut issues are today. But has it always been this way? Do you feel that the gut was always this guiding kind of piece and so intricate and so relevant in health overall?

Dr. Grace Liu (01:11):

Oh, absolutely not. Like, I mean, I come from pharmacy, we're all like very, you know, protocol driven, recipe driven for meds, right? Medications. And then when I switched, you know, it was all about, when I switched to functional medicine, it was all about like, oh, food is medicine. But I quickly realized food is not enough. Mm. Food is just the minimal basic, but food also can kill people. Yes. You know, people with mast cell and surs, mast cells, mast cell mast cell activation syndrome, you know, or mold toxicity or Lyme disease. Their guts are so wracked with different infections, co-infections from all kingdoms of pathogens. You know, viral, parasite, which is eukaryotic. And then another eukaryote is yeast and fung, fungal and, and bacterial. And they can't eat anything. Mm-Hmm. <Affirmative>. So if they ate, like, let's say histamine based food, like I love fermented foods and I think people should be able to eat foods.

Dr. Grace Liu (02:02):

'Cause our ancestors ate foods that was before refrigeration, which was really up to like, you know, a 100-150 years ago. Everybody ate fermented foods. If you, if, because that was the only way to preserve our, our really, you know, good vitamin C rich foods. We needed to prevent scurvy during winters. And if they eat it, they would die. Like, so we, I made a histamine free probiotic, which is just lifesaving. It's SIBO friendly, it's gut safe for most people, but most people, if they have really severe gut problems, they can't even tolerate a pinch of it. And that, that's, that's sad.

Caspar (02:35):

Yeah.

Dr. Grace Liu (02:35):

Even colleagues I have, you know, I'm like, that is a litmus. Your gut is super up. I don't need a \$2000 test to tell you. Okay. You need help. Your gut <laugh> is really messed up. And that includes a lot of carnivores. If they try our probiotics, which are standard, I mean, these are mostly from like baby poop for, you know, from, from human life. Like this is what mom gives us, right? And carnivores will poop blood and mucus trying our a probiotic. I'm like your gut. And they can't take oxalates. So the, we have five oxalate degraders in here. Mm-Hmm. And we miss, or case after our gut starts to lose the keystone flora. These are keystone flora that every gut requires for longevity in life. If not, people get, develop all

kinds of issues. Food allergies, nervous system problems like mood, depression, anxiety, tremor, whatever, seizures.

Dr. Grace Liu (03:23):

And as well as every aspect of our, our every system in our body, fatty liver, fatty pancreas, fatty heart, heart disease, hypertension, diabetes, you know, people are doing all the cgm, super whacked out. They can't eat food. Every food raises their blood sugar. Well, that, that is so immensely wrong. Yeah. You know, a lot of our foods will be lowering our blood sugars, but they don't have enough acidity to make starches into fiber, which is what should happen to, you know, make resistant starches from fiber, you know, from carbohydrates. And they don't tolerate FODMAPs. Well, FODMAPs are our best prebiotics. They're the super fuels for our keystone foods like this.

Caspar (04:01):

So where, where did it all start to go wrong? Was it lit? Was it mostly with the food supply here, or do we also have to look beyond it? 'Cause you're talking about the bacteria. You're talking about parasite, you're talking about gastro, like, you know infections in there as well. And those two kind of go together. But where, where do we start to go wrong with everything that we started to see so many people that just can't tolerate food at all?

Dr. Grace Liu (04:26):

I'm, I'm a big fan of Weston A. Price. He's one of the first like nutrition anthropologists. I was like a chapter leader here in my area here in California. And he really had it, right. Like he could see within just one generation the narrowing of the dental palate when people switch from whole grains, soaking and fermenting whole grains and legumes to eating processed carbs. Yeah. Flour and, and margarine. So moving from natural saturated fats from tallow, you know, beef and then pork lard or schmaltz, like Jewish tradition schmaltz and you know, goose duck, chicken fat. And I come, you know, I'm Asian, so we had a lot of lard. When people moved to seed oils, there is a huge damage that happened. It would wipe out all our omega threes, which we would barely get from, you know, grass fed, you know pasture raised meats and fish and poultry.

Dr. Grace Liu (05:23):

And then moving, you know, wiping out Omega-3 with all these seed oils that are heavy, heavy, heavy. And usually rancid Omega six. You're changing our inflammatory patterns. And in one generation Weston A. Price noted, you know, not just narrowing of the teeth, but all the diseases of, of chronic conditions of modern America, modern living. So high blood pressure, diabetes, heart attack, strokes, mood changes, brain. I mean, I'm sure when the narrowing of the palate happened, something happened in the brain as well, <laugh>. Yeah. And we had never seen this in all of hominids, you know, our fossil history in, you know, a million years from Neanderthal to our current, you know, hominid to have such a change in our cranial structure.

Caspar (06:06):

Mm-Hmm. <affirmative>.

Dr. Grace Liu (06:07):

That's unheard of in

Caspar (06:09):

Human and such, such a small amount of time. Right. It's like so much change in the last century. We kind of kind of brush that off. It's like, look how technologically advanced we are. Look how much we've done in the last a hundred. But in the last a hundred years, it's like, look how sick we've really become.

Dr. Grace Liu ([06:24](#)):

That's a true sign of sickness. Yeah. When, when the, the whole jaw changes. I mean, no wonder people have so much TMJs I have some friends, oh my God, they gotta get Botox here. I'm like, are you kidding me? Like, that's ridiculous. 'Cause the pain here is just so tight. And they already wear, you know, non grinding tooth devices and things like, everyone's stressed.

Caspar ([06:46](#)):

Everyone's stressed. And this is how we're answering it with things that are neurotoxins to just avoid the symptoms without ever asking why. Right. Right. And that, that, that happens so much nowadays when you see just people with so many different, of the gut issues, the bloating, the, there's so many different ones out there that it's, it's never really like too many questions about the why. And, you know, and therefore you can't really get to a true solution of healing. So if someone were out there listening to this saying, I got gut issues. I'm like, most of the Americans out there have something wrong and something associated with that. I'm

Dr. Grace Liu ([07:23](#)):

An expert. I still do. Unless I go in the middle of a jungle, go and do nothing for two weeks, which,

Caspar ([07:27](#)):

Which you just did. Which you're, that's why you're feeling so great, because Yeah. Mean we all can't do that, right? Yeah. Right. I wish we could, and I talked about how I feel more people should travel with you as well before this started. Right. But, but what can, what can we do to start to understand the why?

Dr. Grace Liu ([07:45](#)):

So another why, you know, I'd like to share you know, is because if the damage has happened to our cranial structure in utero, that means even for women, our, our eggs, we're all, they're all shaped in utero. When our moms were born with their moms in utero, this is how far back our legacy of DNA goes. And that's to perpetuate our species, right? It's setting up for the externals. Like what, what are the signals in their environment? How are we gonna shape this new generation so they survive and thrive, not just survive, but thrive? Yes.

Dr. Grace Liu ([08:17](#)):

You know, we're epigenetically gonna shift all these things, make 'em super fat. So if they eat a morsel of energy, they'll hold it and not starve and die. And they'll be able to have babies despite that no PCOS no, whatever, and still have babies and push the DNA forward and, you know, maximize our territory on earth and things. So I think we have to go all the way back and look at epigenetics, like, and shift some of that. You, you know, we need the inputs of abundance. So ourselves can say, oh, okay. Hey, you know, we can relax. We can be longevity now instead of just survival, thriving, but super thriving, but not the survival part. Survival, you know, energy takes away from our energy body. It's, it's very primal. It, it's only in our sacral chakra, you know, according to, you know, yogic traditions and vedic traditions.

Dr. Grace Liu ([09:08](#)):

And they're very draining. You know, having lack, having, you know, feelings of anger, jealousy, envy, resentments, you know, as we know, even anger, it will wipe out someone's gallbladder. You don't, you

don't need to have like intolerance, you know, to wipe out your gallbladder. You know, it's our emotional body, their enter energy. And they will sap energy from other organ systems in order to like kind of be processed. Some people process, and some people, you know, don't necessarily process. And it's probably a lot of epigenetic too. We already know that Holocaust survivors, their next generations are super diabetic,

Dr. Grace Liu ([09:45](#)):

Unless their nervous system has somehow regulated. And those epigenetic changes don't happen. It doesn't happen to all, you know, Holocaust survivors and their children and grandchildren. So it's so interesting to see how we can shift things like meditation. We know it'll raise telomeres by six years in length for life. Just, just a little, you know, meditation a week. We know that. That's energy. That's our mindset. It's our nervous system. Yeah. So I've really, you know, shifted some of my gut healing to the vagus nerve predo predominantly, and a lot of Steven Porges and, you know, polyvagal theory because the ultimate is our nervous system. Mm-Hmm. <Affirmative>. If we, I think we can harness that power to change the epigenetics. When our nervous system has the safety and this sense of environment, environmental abundance, then it can go to like, okay, we're not in lack, we're not, you know, we're not in scarcity. We can let go of those switches. Like, okay, I don't have to be insulin resistant. I can be sensitive and like liberate fat when we need it at, at a moment's. You know, you know, notice without ozempic <laugh>

Caspar ([10:52](#)):

Oh, oh, Oz

Dr. Grace Liu ([10:53](#)):

Ozempic. Yeah. Ozempic <laugh>. It,

Caspar ([10:56](#)):

It's, it, it's great to hear someone with a pharmaceutical background, functional medicine background, talk about these things and connect it in holistic way from generational trauma to the gut, to the nervous system. Right. And to emotions. Because we can't just look at it and say, it's just, let's try and repopulate your microbiome correctly. And that's it. And, and you'll have a perfect gut if we do that. But the truth of the matter is, then you're just looking at things in the vacuum. You're not looking at how the body works as a whole. That the emotions trigger through the nervous system impact the gut microbiome itself. You could feed all the micro great micro biome you want in there, the bacteria. But if you're not creating the environment by the thoughts, the, the emotions, the, the trauma you have by, you know, downregulating the nervous system, which is always sympathetic and always activated, then you can't digest anyway. And it's, it's for naught and all those good bacteria will not survive. Correct.

Dr. Grace Liu ([11:57](#)):

Exactly. Yes. Exactly.

Caspar ([12:00](#)):

So, with all that in mind, how then did you come up with the formulations? 'Cause again, I'm hearing so many wonderful things about, you know, the, the holistic nature of things and addressing all these other issues around the gut. You know, how then were you able to utilize that information and knowledge and create formulas that would help more people that way?

Dr. Grace Liu ([12:25](#)):

I, I love reading primary literature. So I actually dug into like the last 10, 20 years of microbiome data. And particularly like some TCM like Hao Hao Li-Ping, he's a really famous professor out in China, I think he lives in the US now. And he did a lot of the like, cutting edge kind of treatments of microbiome management manipulation that I saw. And he took traditional Chinese medicine, medicine basically, and traditional Chinese like meals. Mm-Hmm. And he could shift the gut microbiome, get more akkermansia, build up bifidobacterium longum, which is what is in our probiotic. We have the highest potency in the market. And other keystone flora, like U bacteria and faecalibacterium. These are all butyrate makers, which of course we can do a supplement. I love pharmaceuticals. Butyrate. Butyrate is a, a pharmaceutical, basically, you know. Mm-Hmm. <Affirmative>. We can buy it as pharmacy prescription.

Dr. Grace Liu ([13:16](#)):

And now we are so lucky, you know, over the counter, we can do really high doses. Like there's Tri Butyrin available and we'll, we'll pump like eight capsules twice a day, and people along with another, it's kind of pharmaceutical in Japan, but it's called resolving. So, you know, specialized pro resolving mediators, SPNs, they've been around forever. So they're really potent as well. These are really good derivatives of Omega-3. They literally cure cancers, you know, and prevent metastases and all kinds of great things. So we'll pump that as well for leaky gut protocol. Again, eight capsules twice a day. Now we've added liraglutide twice a day, but two to three caps, you know liraglutide 0.5 milligram it's a great new peptide. It's not super native to humans, you know, but it can seal the gut. It's not bioidentical, but like can seal the gut like that.

Dr. Grace Liu ([14:06](#)):

And we, we kind of need these attacks because our, our world is just so permeated with toxins, you know? Mm-Hmm. Babies through the environment en Environmental Working Group, EWG, they've done studies on cord blood, on, on, on babies before they even be the breathe a breath of life. They have 300, 400 different chemicals in their cord blood. Now, some of these are just really low level chemicals, but, and we don't necessarily have data like 50, a hundred years ago, but these chemicals didn't even exist in the environment. 50, 100, 150, 200 years ago. But now they do, because of our industry, our pharmaceuticals that go from our bodies and through kinetics, they go, they're ur urinated and pooped out. Now they're in our water supply. We can get endless amounts of atenolol, beta blockers, statins, and birth control in our municipal water. So everyone should drink some kind of like, reverse osmosis and filtered water. Mm-Hmm. But we're full of like heavy metals. Yeah. From air, water, food, amalgams. You know, people love carbonated beverages. Many, many have the mercury in it. Mm-Hmm. And we have, I love rice, you know, but it, because of the batteries, car batteries and other electronic batteries, they've polluted groundwater and rice grown in it. It's gonna be, it uploads arsenic and then the rice fed to pigs and, and, and chickens. And now, you know, you see the pink meat? It's all arsenic. Yeah. It's not because super fresh and oxygenated <laugh>.

Caspar ([15:32](#)):

Right. It's

Dr. Grace Liu ([15:33](#)):

Arsenic. So everywhere we look, even organic wine, glyphosate, and we know glyphosate's a huge gut disruptor, and we do glyphosate testing on our website. Women's got huge amounts of glyphosate, no matter how healthy they are, I don't care how healthy they are. And you can do protocols, but yet, you know, if you're living in the modern world, you eat at restaurants, or even if you cook your own food, you're still likely to get glyphosate. 'cause it's in the water. Even our US department of Forestry to get rid of forest fires, to put 'em out, they're dumping gallons of glyphosate on it to put the forest fires out. I don't know if you know that.

Caspar (16:08):

I did not know that, but I could totally see it. Yeah. Yeah. What's the worst that could happen? Right? <laugh>,

Dr. Grace Liu (16:13):

It lost the patent. And the companies were just trying to still sell it everywhere. Right? So it, you know, we are reflections of the earth. If we heal the earth, I think perhaps we might have a chance of healing ourselves

Caspar (16:25):

The other way around too. Right? If we heal our ourselves, we might have a chance to heal the earth too. It's like, it, it goes both ways. And I always say, I, I make this case to every climate, you know, warrior and, and anyone out there, we all should be. It's our home, Earth. Like, start with yourself. Don't try and tell other people what to do and sit there in erode and everything and be like, no, no. Like, start with yourself. Be the healthiest version. When you're healthier, you're not going to consume things that are bad for the world either 'cause they're not good for you. So it's, it's, it's always this like propagation of like, how do I help? Like, start with yourself, number one, become healthy. But it's incredibly hard because there's an abundance of information. There's a paradox of choice almost, of, yeah.

Caspar (17:07):

Let's just look at the probiotics scene. It's like so many things out there, right? I've had people on here, postbiotics, prebiotics, right. Showing different ways of doing it. For the average person, they're like, okay, I, I can't get my PhD in just like biotics, you know, and what's out there? It just seems like a lot, everything sounds good to me. In some ways, you know, more is better. This one has 10 billion CFUs versus 50 billion, you know right. Where, where does someone start with that? With trying to understand, well, what, what are the postbiotics, like, what are the pre or any biotic's that I should be taking as a supplementation?

Dr. Grace Liu (17:46):

Okay. That's a really good question. So, I mean, I am personally pretty science-based, like all our protocols are evidence-based on like different studies that are taking into account someone's, hopefully someone's, you know, genetics toxic burden and what, what their microbiome is composed of. And, you know, supplements. Some people need nothing like it, it can be just a mindset, you know, get your HRV up. That means actually spend time with yourself without all the dopamine and distractions and like we were talking about, and, you know, delusions and, and, you know, heal, heal. Not necessarily heal, but, you know, get centered. You know, learn about yourself. Not, not necessarily muck up old trauma, but just know, like, okay, hey, there's nothing broken. Our, our mindset, even with my clients, I, you know, have tried to have integration with them. Like, you're not broken. We're, we're doing these to kind of optimize because you're already great.

Dr. Grace Liu (18:38):

You already survived. You're not dead. Okay. <laugh>, you're not dead. You don't have cancer. And you didn't die from like four different cancers or metastases. Like, hey, you're, you're, you're not dead. Okay? So we're just working to optimize if they're willing and open to think of it that way. And, and really I love the peptides. Mm-Hmm. Those are the best postbiotics. So guess what this makes, they make peptides. Mm-Hmm. When they're happy, healthy fed, they have to get fed. Yeah. So you either feed, off your gut lining, and if you're healthy, you have plenty of it. Okay. Let's say you're not so healthy. You're eating a crap diet, or even you're eating the best diet, but because of the presence of, you know, overwhelming

parasites, long haul SARS, COVID two virus running around, or spike protein running around let's say stress, which, you know, mold is also very stressful. Mm-Hmm. Maybe they're still living in it, or they had past exposures from 10, 20, 30, 40, 50 years ago, whatever. But still in their meridians of their lungs and their gut. And so you gotta move some of those mycotoxins out, you know, it's helpful. You know, I love Vikings like all, you know, northern hemisphere, they love their saunas.

Caspar ([19:44](#)):

<Laugh>, yeah. They really do it well. Huh.

Dr. Grace Liu ([19:47](#)):

Japanese, you know, vikings or Warriors, right? Like they, they do their saunas every day. Like, and studies show they are extending their lifetime doing that. Well, how? 'Cause they're detoxing every freaking potential toxin that may have come across the radar, but we don't, you know, not everyone has access to that necessarily, you know, thank, thankfully, I think a lot of gyms have it now, but you have to find a sauna also that doesn't have mold. Like, I've now met colleagues and friends, they, they didn't know there was a leak and then there was mold and they were getting worse and they didn't know why. So it's like, oh, all these caveats. Right? <laugh>.

Caspar ([20:20](#)):

It, it's the caveat of, of you're sweating and introducing a lot of moisture into an area, allowing it to cool and stay that. Yeah. It's like you're sweating and creating a problem while doing it. Right, right, right. If you don't clean it properly, if you don't do it.

Dr. Grace Liu ([20:34](#)):

Yeah, exactly. Yeah. And then I kind of did it the wrong way. I got super excited about it when I joined some places that had sauna, but I didn't do binders, and I knew I had a mold exposure a year earlier. Mm-Hmm. <affirmative>. And it's like, okay, then I was just redistributing it. And some people think, oh yeah, they're great with, but they are, you know, dealing with certain chronic conditions, but they're not doing binders. So I, I did, you know, my standard binders and then that was great. Like, I could actually, you know, I should have done more testing. So testing is good, but not every, some, some people have SNPs, especially the really, so-called healthy ones, they can get by with a lot. Their SNPs don't allow detox. Maybe they don't sweat very much. Maybe their CYP1A/B or, you know, other Cytochrome P450 system in their gut or liver.

Dr. Grace Liu ([21:17](#)):

We have, you know, several, you know, detox systems. One is the gut, 'cause the flora literally will detox for us. But we have CYP phase one and two in the liver. You know, they have certain SNPs that don't release toxins or they're, you know, adipose or wherever the storage forms of different toxins are. Don't, don't easily release. So we have to provoke. Mm-Hmm. <Affirmative>, you know, Shoemaker and many other protocols, they have really, really great provocation protocols. Like for trying to get the mercury out. We gotta do some chlorella and cilantro, you know, get the mercury out. Don't use binders during that time and, and see what comes out with mold. Same thing. Glutathione, one gram a day, sun every day, and then collect the urine again. No binders for a week. Let's see what shows up. Because these people, if you didn't do the provocation, they'll look like they're completely healthy.

Dr. Grace Liu ([22:02](#)):

And that's completely not true. Nobody is. Yep. You provoke, then you'll see the, the, the body burden. Is it perfect? No, because our bones store stuff, that's not gonna release on these provocation protocols.

Yes. You know, and who knows, you know, 'cause of, you know, SNPs and variants, people get some hidden reservoirs, which was good for people who moved to that mountainous areas that were devoid of minerals. Like ApoE4s is actually enriched in like Tibetan mountain people. Mm-Hmm. <affirmative> needed the minerals. They were away from mineral rich, like seafood. Seaweed. Right. And yeah, sea, sea minerals. So they got enriched for iodine and really critical minerals. But then they, they, if they come to modern rural, they get enriched with all the industrial minerals too, which are, you know, are heavy metals, mercury, arsenic. Mm-Hmm. <Affirmative> and yeah, uranium. All of 'em. Yeah. So it, it's, it's interesting to look at genetics. Like there, there is something about, like, some people do great with more, you know, carnivore diets. Some people do great with more plant-based. I'm ApoE2, E3. Like I'm very good with plant-based, but I do need to have my B vitamins 'cause I have a bunch of MTRR MTHFR, I need, I need the methyl folates. So I do need my liver and, you know, and chicken and red meat.

Caspar (23:14):

Yeah. It, it, it's so important to know thyself when you're talking about these things and not just, you know, listen to any piece of information. Just take it and run with it. Because in knowing yourself and where you are, that that gives you the best ability to then personalize to you and understand what's best for you. Right. Like we talk about detoxification and it's so important, but there, there are so many different ways to go about it. And understanding who you are, what type of detoxifier you are. Right. There are different reaction modes. You can even look at, you know, your different types. Going to traditional Chinese medicine, you're more of a fire earth. Like, you know, do you detoxify well with it? Are you able to push, you know, I I, I know there are these different reaction modes and they say those are a little bit genetic and, and kind of predispose disposed.

Caspar (24:03):

And you know, those people that could drink all night, even in when they're older, wake up, go to work. Whereas like others have a few drinks next day it's over, you know? Oh yeah. Yeah. You could barely think. And just, so there of course are, are the genetic predispositions to everything. And then the epigenetics and our actions that we must take around that to be our best and right. And so many people get caught up on, you know, what's the perfect way to detox and, and do that. Do, do you feel that there are, you know, beyond just the, the looking at the saunas, do you think there are certain detoxification protocols, aspects, and supplements we should all be using?

Dr. Grace Liu (24:44):

Yeah. You know, I'm, I'm very like, agnostic even though I make supplements, you know, I'm very like personalized. Yeah, yeah. Like, I think there are seasons. Yeah. I think there's seasons. And it is like you mentioned, like, it's good to know my thyself. 'Cause there's some you know SNPs I look at, like for the gut you know, some are like dentin 1, you know, they're, they're like candida markers and there's a host of 'em. And I have like FUT2 mm-Hmm. Negative, negative homozygous. So like, or, well, it depends on where you are looking in the body. But there, there's several, I have either red or yellow. So homo homozygous or heterozygous. So I need more bifido longum, like my, my body. It adapted to something where I have better viral defenses. Like for a lot of FUT2.

Dr. Grace Liu (25:38):

If they were HIV positive, they are not gonna turn into the disease or at AIDS. Like they're long time like suppressed actually for virus. And same with norovirus, which used to kill people. Like it was maybe still does on cruise ships, you know, all the immunocompromised elderly or babies, you know. So we were protected. So there, you know, all these adaptations, they're, they're adaptations, they're protections for certain eco eco ecosystems and ecological niches. But then in the modern world with the like fiber devoid diet, okay, I'm, I'm gonna get hit more. It likely emerged 'cause the diet was really rich in prebiotics.

Caspar (26:16):

Yeah.

Dr. Grace Liu (26:17):

So then it could emerge and it didn't hit those people. And then they got protection from neurovirus and other viral viruses. Same with even BB27, HLA-B27 for akylosing spondylitis. It's hugely protected for H hepatitis B and HIV not, not that that should be tested or anything in real time, but, you know, but in the modern day with high, high gut issues and sticky proteins like caisen and, and, and gluten, okay. It's, it's the bread disease, spon, you know, like pain in all your back and spine joints, like, you know, people eat bread and they're like, oh, super inflamed in bed for years and have to take these injectables now.

Caspar (26:57):

Yeah. You've probably heard of the Italian paradox with that and gluten, correct? To where people go to Italy and can eat all the bread they want and pasta they want not have any response come back to you united like it. So my question for you then, understanding like those kind of things that happen in the world are, are we, is it really the gluten, is it glyphosate? Is it processed foods? Is it chemicals and preservatives that we're eating more of in combination with the gluten?

Dr. Grace Liu (27:22):

Absolutely. So I hear it all the time. Like we've worked with celiac people. They take our probiotic and do some gut resetting, some, you know, tr treatments for parasite and, and candida and yeast and you know, we have to do full, you know, semi mold protocols, but they heal and they can eat like bread and beer out in Europe, like without a band with a abandon. I'm like, and I do it too. And I'm even in Japan with Fukushima and all the radiation. Like I can eat anything and I'm like flatter tummy than ever. And I'm not even sometimes walking around. But, you know, generally you find you're kind of walking around more. They don't use so much petrol and like, you know, cars and, you know, driving. Yeah. So, so with the, you know, condition going on, we do see people, they make a gut turnaround when they're on a trillion of our probiotic. Daily

Caspar (28:07):

Point. A trillion

Dr. Grace Liu (28:08):

Point. Yeah. A trillion. So that's a mini FMT Fecal Microbiota Mm-Hmm. Transplant poop transplant, you know, with two poop transplant, they're drinking diluted about a quarter cup of poop, you know, either through nasal jejunum or again, nasal gastric tube. Right. or the pills. So, Mm-Hmm. <Affirmative>, it's about a trillion. We're getting a trillion and it, they're clean and curated species, so you're not getting in junk or like STIs or Lyme disease or co-infections from a poop transplant from collected from multiple donors. And there's a turning point. Yeah. If people can, you know, crank up and gradually, you know, accept that dose, especially when they have, you know, different conditions that they're dealing with. Yeah. There, there is a magic to the 1 trillion dose, 1 trillion day dose.

Caspar (28:54):

And, and in that trillion

Dr. Grace Liu (28:55):

Sac, and this is without saccharomyces, we made it saccharomyces free because we do testing ASCA, which is the Anti-Saccharomyces cerevisiae antibody, we can check it on LabCorp or Ulta. They, it, it's a marker for worse, you know, gut disease, which is Crohn's where there's autoimmune attack in small intestine. Mm-Hmm. It's kinda like celiac as well. ASCA will pretty much have prognostic huge, you know, huge prognostic value. These are the worst of the worst. And they're gonna take forever to heal. You know, because they're allergic to their own yeast. Saccharomyces is the number one or two fungal element in the healthy gut. It's part of native flora. We shouldn't be launching autoimmune attack to any of our own tissue, whether it's thyroid, joint, spine, brain, cerebellum, you know, or our own flora or food in general. Like none of it should be leaking into our bloodstream. So we, we, we live in a world where there are multiple assaults to our thin layer. It's literally one bloodstream, one cell layer between the bloodstream and our small intestines. And it's a huge surface area. The tennis court area, that's how we absorb all the molecules of few food that fuel our brain and body. Our bo our brain takes so much glucose, like at least 25% of our whole glucose load from digestion of food. Yeah. And, and yeah, we can move to fast, but it prefers glucose. Yeah.

Caspar ([30:14](#)):

I was gonna say, out of the, you know, you're doing that trillion, let's say on a daily basis. What, what is the best food for that specific you know, bacteria? Is that the bifido maximus or

Dr. Grace Liu ([30:25](#)):

Oh, yeah. Yeah. Our the best prebiotic are resistant starch type two cooked beans and rice. Mm.

Dr. Grace Liu ([30:33](#)):

Yeah. Or also they like sweet gooey prebiotics, like inulin. If you taste it, there's no carbs in it, but it's slightly mildly sweet. Mm-Hmm. <affirmative>. And it's in 30,000 plants on earth. Inulin is, yeah. And FOS and what beans have I studied actually this in my last year at nutrition science at Berkeley. But it has something called raffinose oligosaccharide, ROS. It makes us fart, you know, if we don't have good lacto of slight break 'em down. So soaking overnight or putting a pinch of this into beans, if you're soaking them overnight for a day or two, it helps set up the prebiotic to be more bioavailable, even makes the protein more bioavailable for digestion. But the raffinose is, oligosaccharide is a powerful prebiotic that feeds like the flora that belong at our mucosal level. Yeah. So we can't sample the mucosa, sadly. Mm-Hmm. <affirmative> unless we go in and biopsy. So we don't have any gold standard. I only can go through POC proxy, you know, looking at a stool kit. There's so many stool kits out there. They're all great. You know, GI map is one we use a lot of. Mm-Hmm. <Affirmative>, you know, you can kind of do a proxy, but it's only telling you what's in the stool, not the mucosa. Right. Which is what we really want. Because that's the flora that is protecting that one cell layer of the microvilli before the bloodstream.

Caspar ([31:49](#)):

Yeah.

Dr. Grace Liu ([31:49](#)):

Yeah. And it's the interface, because that's how we absorb nutrition so quick 'cause it's going immediately into our bloodstream. It's literally a, an interface like immediate interface.

Caspar ([32:00](#)):

And, and I've heard so much from different practitioners and people out there that that is such an overlooked part of the equation. You, you have to look at what the microbiome, but you gotta look at the mucosa, the permeability, the gut permeability, all those things. Yes. Like you're saying, this is such an

important single cell. It's the size of, you know, tennis. It's, it's where everything happens, the absorption, all these things that, that's really important too. Right? So what are the best ways that you've seen without getting into true personalization and knowing someone's, you know, different lab parameters that we can improve on that area? The mucosa within the gut?

Dr. Grace Liu ([32:40](#)):

Yeah. So, so I mentioned the leaky gut protocol. We can seal that with some external supplements, you know? Mm-Hmm. <affirmative>, until we get enough butyrate production at that level, the mucosa level, we can take TriButyrin as a supplement. Okay. Yeah. Many will, you know, resist digestion in the stomach and make it to the small intestines so we can heal. Yeah. So we, we'll pump the dose. It's a, basically a pharmaceutical dose, like Mm-Hmm. <Affirmative>. So TriButyrin, you know, 8 caps even twice a day, 8 twice a day. And then we do SPM because it just brings inflammation down. It stops the cytokine storms that are causing, that are leading to ulcers at the mucosal level. The pathogenic flora, you know, we wanna start weeding them because in the meantime, while they're thriving there, because of the lab regulation and the guardianship, you know, of these really kind flora, they go kind of crazy.

Dr. Grace Liu ([33:29](#)):

And they're, it, you know, it's like a bad pharmacy. They're making all these pro-inflammatory chemicals. They're carcinogenic. H pylori is literally a carcinogenic microbe. We know that. But there are also good species of, of h pylori. We wanna shift them there and we have to bring its allies in, and then we know okay, then it's really happy. Like cagA plus strain of h pylori, we know it's a really happy, generally a good protective flora for like prevents asthma is associated with reduced adenocarcinoma actually. And many other benefits, less GERD. But then there's other species, they go crazy because they don't have the allies there that keep 'em kind of in check. So they're just trying to, you know, keep their territory and, you know, not get squeezed out when they're missing their allies. So we wanna like kind of just bring those burden down.

Dr. Grace Liu ([34:16](#)):

And, and then the third a fourth actually. So the third is larazotide, the fourth part of our leaky gut protocol. It's actually mega IgG immunoglobulins. So as you know, for like snake bites or long-haul covid, we'll do like IVIG, you know, immunoglobulin through intravenous. This is the, the pill form and the pharmaceutical dose is quite a lot. You can get a prescription, but we just do, we do microbiome labs. It's a great product. There are other ones out there as well. It comes in powder or pills. And we'll do like, again, eight, eight capsules once a day or twice a day. And that'll quickly like quench a lot of like inflammation, bind up some co-infections and viruses just to allow like this area to kind of cool, you know, cool down. When it cools down then the cell microvilli and the cell wall, the cell mucosal layers all can heal really quickly.

Dr. Grace Liu ([35:06](#)):

Mm-Hmm. <affirmative>, especially if we bring in their fun friends, these regulate and send the right ke, you know, chemo, chemo kinds and signals to like heal Mm-Hmm. Like keep everything needs shut, you know? No, no zonulin, let's like bring it all down. And the best thing is this is our brain. They also make serotonin healthy levels, and then they can get stored in the enteric nervous system. Sometimes there's bidirectional communication, I think, to the brain, but generally not. But we need these, that's why people are so crazy, they're so anxious, they're so bipolar. Yeah. But once they start our protocol, especially our gut reset you know, they're, they're just feeling great. They tell me like, oh my gosh, Grace, I used to have a sugar addiction or porn addiction or whatever, addiction, you know? Mm-Hmm. I don't anymore after the protocol. Have you heard that?

Dr. Grace Liu (35:49):

I'm like, yeah. All the time. You know, their bodies are just trying to self-soothe. They're not getting enough GABA. So we have, you know, the, the production of GABA comes from species like this as well. It's very balancing. We even had like atypical n neuro atypical folks or children, they just do like a few capsules or, you know, actually they can get up to even a tablespoon quicker than most adults. And they start making eye contact. They triple their vocabulary. They're just becoming more and more neurotypical. We, this is our nervous system, really. Right. And it weighs almost as much as our brain, our microbiome literally weighs about two kilos, like almost as much as the human brain. Yeah. But we collect it, we ignore it. We think it's a black box, but we know so much about it. And that's what I like to share for people.

Dr. Grace Liu (36:32):

You know, we, we should have the keystone flora, the ABCs and the Cs are the clostridial's. So A is akkermansia, BS for the bifidos. C is clostridial, these are the butyrate makers. And there's one that's really found in, you know, a lot of longevity people is eubacterium limosum. It's like 18, 17 fold higher in centenarians. And what it does is it, one thing we know it does, probably doesn't, a whole bunch of hosts of things, but it converts like good citrus, alk, you know, chemicals and alkaloids into like superpowered, anti anti inflammatory longevity versions, variants. And people with cancers don't even have that species, you know? But we, you know, it's enriched in centenarians. Some genetically, I think enriched. But I think it could be from their diet even, you know, they're eating foods that promote it. And if you look at centenarians, they have great lifestyles. They're so tied to their community. Right. There's a, there's a lot of safety they feel cared for by their extended families. They have touch, you know, they're usually, you know, hugging

Caspar (37:35):

Strong relational bonds. Yeah. Yeah. That's a big one.

Dr. Grace Liu (37:39):

And the best happiness study was the Harvard one that's been running for over a hundred years. I think John Kennedy was even one of the participants, you know, basically they, they found like supplements are shit They, they, they don't ledge any statistical metric for longevity at all. You know what it was. So it wasn't like finances, wealth, it wasn't what we would think, you know, diet or like vegetarian versus whatever, you know, or supplements. None of that. It was actually the quality of their relationships. Yeah. And I think that translates to the quality of the relationship to themselves. You know, they don't hate, there's no self-loathing. Right?

Caspar (38:12):

Yeah. And, and that makes you think, if that's such a big deal on our normal level, or you could even say our macro level, what about the micro level, the relationship of the things we have within us, right. The bacteria within us that we forget, are they getting along? Yes. Are they lonely? Are they like in a depressed state themselves? Like we, we, we, we often do not think that there is anything other than us going on with us, but there is a whole civilization within us happening and changing. There's a, sometimes they're at war, right. Sometimes they're not. Like the radicals come out. Yeah. And like, we go at war. But you want peace and harmony usually for the sake. Yeah.

Dr. Grace Liu (38:56):

We don't want like gladiator days, like gladiator two, right?

Caspar (38:59):

Like we don't, right. We don't need that sort of entertainment going on in us. And Yeah. And threats of nuke bombs. Right. We

Dr. Grace Liu (39:05):

Don't want survivor island. We don't want island. No. No drama. Like, yeah. We just want like peace. But yeah.

Caspar (39:12):

But of course a lot of that is dictated by what we are putting into this. Right. What we're adding in there to be like, all right you guys, this is gonna rile you up. And so I want to ask about that. We talked about some of the foods to use, of course within the protocol, the supplement itself. But what are the things to absolutely avoid? Because that, that in itself is almost controversial at times between, oh, you can have a little bit of alcohol, you could do this. Coffee's okay, it's good. But no, it's acidic. Like

Dr. Grace Liu (39:41):

I know I'm always looking for the out and like the like, well how far extreme I can go without like, screwing everything up. So I was looking at like Okinawa ones, you know, and a lot of the National Geographic is just like bullshit. You know, they're saying they're all vegetarian. It's not true. Lot of lard, they eat lots of pork and you know, but they also eat a lot of bitters. So that's a good thing to add into the diet. Yes. And the Okinawa ones, they celebrate, I was looking at their social calendar for the ones that live, you know, 90-100 years. Like they have a lot of festivals, so they're enjoying life and family. Mm-Hmm. <Affirmative> and relationships. And on the festivals, they eat desserts and many other sweet things. And it's like almost once or twice a month. But, but on their other days, their non festival days, non celebratory days, you know, they have a, they have their Okinawan diet.

Dr. Grace Liu (40:24):

It's, yeah, it's like a lot of veggies, you know, probably healthy, heirloom type raised meats. I I would imagine like pastured kind of pork and chicken fish and things. So they, you know, I think they, it, you know, it's a, it's a, they probably have a lot of fermented foods 'cause they're in Japan. The traditional Okinawan diet is you know, special in that regard. And rice and their purple tubers and Mm-Hmm. <Affirmative>. So every region has their own Okinawan diet. You know, I think, and I think it's okay to celebrate, like not, not to feel guilty about it. Like I think we put our own like nervous system shame, you know, to our outlook for certain things. But you know, if you just enjoy it. Like, but then on the flip side, in Bama in China, these elderly, you know, became a tourist attraction there for the centenarians.

Dr. Grace Liu (41:18):

And they started getting a lot of red envelopes. And the second they got started getting this extra income in the red envelopes, I don't know what they were buying, but I imagine sugar and candy and <laugh>, hot rice seed oil fried things. Yep. Really? They all died. Like their genetics weren't superior. Yeah. It was their lifestyles and relationships, whatever, you know, their diet, you know, at the time. And ancient diet and water, all of them lived near like mineral wells and things like that. But you add in the modern component too much. So for them, you know, push them over the edge, they start getting high blood pressure, strokes. Actually, a lot of them have perished. Wow. A lot of 'em, like that civilization just got wiped out <laugh>. And it wasn't even like, you know, colonial days, you know? Right. Yeah. Like, but in a way it is. They had their colonialism, they, they got protected in this bubble for as long as they could.

Caspar (42:08):

Yeah. It's, it's like everything in moderation really. I understand. And sometimes if you're already in a very acute state, of course you have to change that while you're in acute state. But you know, the idea is moderation. But doing it with gratitude without stress too, you know, it's, it's like there's a joke in a running me, you probably see on social media. It's like, how come when I'm like at the beach on vacation, I could kind of drink and have like, enjoy sweets the next day I feel fine. And meanwhile when I do it on like a work night and I have one drink, I'm like hung over the next day. I feel like crap. Like sluggish. I think it's because of the attitude towards it. You know? Absolutely.

Dr. Grace Liu ([42:46](#)):

They gave,

Caspar ([42:47](#)):

There's a negative association, right. When you're doing

Dr. Grace Liu ([42:50](#)):

Our permission. Right.

Caspar ([42:51](#)):

How

Dr. Grace Liu ([42:51](#)):

Much do we give our permission to our nervous system?

Caspar ([42:54](#)):

Right? Right. And it knows that you're producing probably cortisol while you're trying to enjoy these things, which is gonna be counter and create a, a kind of vicious next day feeling to it. Whereas if you just did it in peace without guilt and enjoy and just said, this is for me, you know, it's so much you, you don't have that. So I, a lot of times it's the belief systems we have to something. Right. If I have this, I will feel this way. Right. And it's not even that you will, it's that you created that yourself through thoughts and everything. So I will say like, eat without guilt, of course try and be happy. You can't keep feeding yourself poison and say, this is so good, this is so good. And then, you know, try and work through that. You'll do it. But there, there's something to be said about trying to eat intuitively and or trying to just live life, let's say consume things intuitively, but also without the guilt and with lots of gratitude.

Dr. Grace Liu ([43:49](#)):

Well, lots, I think you're right. It's lots of gratitude and doing what we love. Like Yeah. One of the best moments in my life, my kids were born, I was like running like four or five miles a day drinking a glass of wine. My h my HDLs were like 108. But I love what I was doing, even, you know, I had long days sometimes, you know and you know, that's kind of like a vacation for me. Like even my dad, he's 85, he's still working two days a week as a surgeon. He's a doctor. Mm-Hmm. It's like what we love and, and I talk to a lot of executives and, and clients, you know, there's something in their life they may not love. Maybe it just is a perception that has to shift. Yes. And it's draining their, their gut and I know it. Yeah. Like I try to, you know, try to talk with them. You know, either you have to have a jobectomy or a personectomy in your ectomy. Right. Or friendectomy,

Caspar ([44:39](#)):

You know, those non-surgical ectomies <laugh>.

Dr. Grace Liu ([44:42](#)):

Yeah. Or maybe it's just a mindset to shift it. Like, okay, you know, sometimes it might

Caspar ([44:47](#)):

Cancer. Right. Sometimes it's a subconscious belief. You don't even know you have that belief system running, but it's been, since you were a kid, you were once told you can't eat that you got very traumatic over it and you forgot about, but it's stuck with you. Right,

Dr. Grace Liu ([45:01](#)):

Right, right, right. Or your middle child and you know, you got something taken away and was given to the older one, and then now you've like, you have this like, oh, everything's gonna get taken away. And you realize it was so young when you had it, and then that feeling perpetrated. Perpetrated. Yeah. Yeah. And that's why it's lovely. Like people hit rock bottom, you know, sometimes that's how it is before you work with someone that you know, will really make a difference. But hitting that rock bottom, wherever it might be, or for me, like a semi, the pasta retreat, you know, there's some rock bottoms and edges you hit. Then it's like, okay, when you come out of it, you're like, oh my God, I'm grateful <laugh>, I'm grateful to, to have running water and I can, you know, make a cup of coffee or a cup of

Caspar ([45:40](#)):

Absolutely. It shift perspective, right?

Dr. Grace Liu ([45:42](#)):

Yeah. You just, it's just a perspective shift.

Caspar ([45:45](#)):

Yeah. Yeah. And that alone is such a healing feeling in itself. It's, it's a relieving feeling. First off, it's like pressure off of you, but it's also just a, a, a release of, of all these healing types of reactions that'll come out of this realization almost the shift.

Dr. Grace Liu ([46:03](#)):

Yeah. There's a gift in rock bottom, whatever

Caspar ([46:06](#)):

It might. There, there, there, there is, there really is. And, and there's also a curse in always trying to avoid rock bottom. Right? Yeah. That you're just bent down rock bottom, my God. But you're like, I'll never get, you fight so hard just not to hit it. But you never fight to get outta it either. So you're right. I find that the biggest curse to so many people. They refuse to hit rock bottom. They'll do anything to avoid that, but they won't get out of their depressed or really bad state. So they just kind of comfortably but uncomfortably. Yeah. Sit at like near bottom.

Dr. Grace Liu ([46:37](#)):

Oh, exactly. I've done that. Even with my gut. I know. I'm like, I've trashed it too much. I'm like taking my 20 supplements a day and my 40, you know, peptide injections a day. It is like, no <laugh>. It's exhausting.

Caspar ([46:49](#)):

It is. It is. And sometimes you're just like, let's just go back to the ways it was, tight? And just be natural, outdoors, feet in the ground, smiling, just doing your thing and, and enjoying life a little bit more. But it's difficult in this day and age. And that's the beauty of having people like yourself that those that are struggling can find people like you. So with that said, where can people connect with you? How could they start working with you and learn more? Yeah.

Dr. Grace Liu ([47:16](#)):

All our information's on our website and we also we're on media like Facebook or and Google and, and Instagram. Just search The Gut Institute. And you'll find me, we have a couple interviews Yeah. Podcasts all over Gaia TV interviews. Yeah. Hope, hopefully they'll be interested to, you know, look at the regenerative edge, even if it's to simplify more, you know, but like to, right.

Caspar ([47:42](#)):

But I think that's what it is. You, you, you had such a, you have such a scientific approach to this. You obviously know so much about the science and, and everything that entails within the gut and the rest of the body. But there's also that holistic element. There's that understanding of emotions, passion, like where your relationship's at, the questions that matter within the context of it all. 'cause Nothing is by itself just the particle hanging out there. You could interchange. It's all guided together, interacting. And, and that's why I feel like so many people have that trouble of trying to figure out their own puzzle, whereas people such as yourself are wonderful, wonderful catalysts to helping them figure out and then continuing to live that way in health and harmony.

Dr. Grace Liu ([48:26](#)):

Aw, thank you so much. And I love referring to people to like clinics like yours with all the like fancy and the basic, you know infusions and treatments. We still, we still need all those, we're, we're in such troubled times and it makes things so much faster, such rapid,

Caspar ([48:43](#)):

We are, we're in troubled times, but the, the human body mind spirit is a miraculous self-healing mechanism. Right. It's so amazing at what it does. And, and for that reason, it's sometimes it just needs a little push. It's not that any problem is too big, it just needs a different approach to it to kind of figure itself out. So I, I thank you for your work and everything you're doing to get us back in line and help us one gut at a time, one person at a time, one mind, one spirit at a time. So thank you so much Dr. Liu. Really appreciate this conversation.

Dr. Grace Liu ([49:14](#)):

Thank you so much. Thank you so much Caspar, for having me on.

Caspar ([49:17](#)):

And be sure to visit TheGutInstitute.com for more information. Until next time, continue writing your own healing story.