



## The Gut, Pelvic Pain & Women's Health

Clinical training by Dr. Grace Liu and Dr. Jessica Drummond

Jessica D.: Hi, and welcome everyone. My name is Jessica Drummond from the Integrative Women's Health Institute, and I am here with Dr. Grace Liu, and she is a pharmacist and founder of the Gut Institute. She is a probiotics formulator, host of the Microbiome Medicine Conferences, and the Gut Secret Summit. She educates coaches and clinicians around the world about gut health. Her goal is to improve one trillion guts and impact the world around us. She is an IFM-trained functional medicine practitioner, and a clinical pharmacist who's been in practice for more than 20 years, focusing on complex disease management. So, welcome Dr. Liu. How are you?

Dr. Liu: I'm doing so well today. Thank you so much, Jessica, for this opportunity to speak about women's health. It's been so close to me, and actually, I haven't had a platform to talk a lot about this actually, just only in small little sound bytes. So, I really appreciate this opportunity.

Jessica D.: Yeah. And in women's health generally, even though when we're working with hormones, even when we're working with pelvic issues, musculoskeletal issues, pregnancy-related issues, we usually start with the gut because that's really where everything begins.

Dr. Liu: So, just to give you a definition, our human body is the terrain that we look at, the whole body as an ecosystem. Just like you've heard the term "it takes a village," it takes a village for our body to have protection and bodyguards and barriers that keep invasions. We constantly have microbes trying to invade us, but they never really make it, and the reason is because we have amazing bodyguards. Just like a celebrity may have bodyguards to protect them when they're out and not get papped, right, we actually have an amazing system so that we stay healthy and strong for our whole life. Just as babies are born, they're full of bifido, and then that bifido carries them all through life. There's one main bifido probiotic that we look at called Bifidobacterium Longum.

Dr. Liu: Longum was discovered because, in Japan, it is associated with longevity. It keeps them disease free and chronic disorder free, so it's really, really special. And when it's missing, there are a lot of things that go awry. And then same with the vaginal microbiome, we're gonna go over that. The main flora there, because it's very interesting, the vagina is an area where there's the least diversity, and maybe it's because it's one of the most important terrains out of all life on earth, actually. The vaginal canal is the birth canal for humans, and the vaginal canal has very, very, very little diversity. In fact, it's almost 99 to 98 or 97% all lactobacilli, and the main flora there is lactobacillus crispatus. We'll talk a little bit about that.

Dr. Liu: So the microbiome happens to be the collection of all the DNA, as well as the flora and how they interact with the host. And when I talk about their roles, I break it down into the D's. And it's not

even important some of the strains, or genus or species that are there. It's their DNA and what they do, the pathways. And it's so interesting, each of the groups of bacteria, they're almost like an app. How many of you have apps on your smartphone? Apps are great, right? They make your life funner, easier, effortless, right.

Jessica D.: Mm-hmm (affirmative).

Dr. Liu: That's what our bacteria do as well. And wild yeast, they all have special roles and functions to make your life funner, easier, more effortless. And their main roles are the five D's. Of course, we already know about digestion; but a lot of things we didn't know.

Dr. Liu: But they detox; they detox these little stones and lumps called oxalates. They get stuck in your breast, right? Or they can get stuck in your vagina or in your endometrium, or the bladder and cause a lot of pain and problems, right? They also detox primary bile acids, which are super toxic, can lead to colon problems, colitis, and colorectal cancer. And we know that they detox xenoestrogens and all kinds of xenobiotics which are strange, unusual compounds that don't really ... some belong in the human system, but many are foreign and industrial-made, so obviously they're super toxic.

Dr. Liu: We need them just for daily physiology. We can't sleep without them; we need melatonin from serotonin, which comes from our gut flora, and we need GABA. A lot of people have this agitation, right? It's not just because they're missing B vitamins, but they have too many parasites and pathogenic overloads, and they cannot feel calm. Once we replace them, and we get the good flora on board, we're having plenty of GABA, which is like being on a beach. Calm, serene, right? We all need that.

Dr. Liu: And then development of immunity. This is what a lot of our protocols focus on, actually, restoring immunity. Where is your immunity? 80% of your immunity is in the small intestines, not the poop side, the colon side; it's your small intestines. And this is such a fragile, vulnerable area. There's only one cell layer that separates tens of trillions of bacteria and wild yeast from your bloodstream. And this is the interface where we deal a lot with to restore. And you don't even need a lot of leakiness here. A little bit of leakiness goes a long unfortunately these days to create autoimmunity and immune problems and cancer risks.

Dr. Liu: And then they are the defenses. We really wanna restore these back as much as we can. You need those firewalls up and the apps.

Dr. Liu: So when we talk about women's health, I'm so excited to talk about this. I look at the trifecta of dysbiosis that happens, just regulation and damage. And all of it comes from a lot of modern living right now. There's hypotheses that paleolithic man and a lot of rural-living currently people and hunter/gatherers in different communities, they have essentially very little chronic diseases. Very little diabetes or Alzheimer's or Parkinson's. Even Parkinson's now is known as Diabetes Type III.

Jessica D.: Mm-hmm (affirmative).

Dr. Liu: And their cancer risks are extremely low. And what's different is that, you know, they don't have healthcare, they don't have antibiotics, and they have a close tie with their environment and all

the bacteria, environmental and [inaudible 00:06:11] biotics, right? And they don't have C-sections or formula, so the birth canal is literally untouched-

Jessica D.: Mm-hmm (affirmative).

Dr. Liu: -and full of the good stuff. So the hormone shifts we have in our environment lead to different things, like high aromatase, which leads to estrogen dominance, especially in the endometrium for ladies who have PCOS, cysts, and fibroids, right. And when we have stress, we have something known as steroid steal or pregnenolone steal. We see our progesterone go way, way down. I'll go over a case where she started off really well on progesterone, had a multitude of problems including interstitial cystitis. Well, when there's a lot of stress, our body tries to prepare for that. It will steal progesterone, and it will go to testosterone, and of course, estrogen. We see a dominance of both sometimes, depending on genetics.

Dr. Liu: I'll go over some cases and explain how our muscles and our collagen weaken. They get saggy, wrinkly, and loose, and then things burst out, right? We'll go over a little bit about that, and how our modern age will lead to insulin resistance which leads to this muscle and collagen weakening. And I focus a lot on the dysbiosis, the change in our pattern of bacteria and that phenotype. I think of it as a fingerprint. When we're missing the good stuff and we've got too much of the pathogens, that's where we have the imbalance of dysbiosis and how we address that.

Dr. Liu: So women's health issues are becoming really close to our forefront, right? We're seeing so much of an epic rise and growing incidence of all kinds of cysts, fibroids, PCOS, endometriosis for ladies, and bacterial BV, bacterial vaginosis, and recurrent chronic vulvovaginal candidiasis. And along with this, there's a higher breast cancer risk. In fact, all cancer risks are high. I think the estimates by year 2020 are one out of two for men, and then one out of three for women. It's quite a lot.

Jessica D.: Mm-hmm (affirmative).

Dr. Liu: And infertility is really, really ... at quite such a peak.

Jessica D.: Now, would you say that, for the increasing incidence with these women's health conditions, are you seeing a significant shift in the microbiome in terms of diversity? In terms of species dominance? Anything that's sort of directly related to a change in our microbiome?

Dr. Liu: Yeah, there's a growing body of evidence that, here in the Western world, especially USA, there is extinct lactobacillus crispatus. It's just not in the microbiome or in the vaginal canal for women. It's incredibly sad.

Dr. Liu: I have a post where the person had vulvodynia, and did a lot of [inaudible 00:09:02], and on the Ubiome vaginal, it was 98% lactobacillus crispatus with using a BB536 probiotic. So very interesting, it was a bifido longum probiotic to reset and recolonize, and yet it was 98% lactobacillus crispatus after the reset. So it's really interesting how engraftment of the keystone flora, which is not lacto, will lead to the other keystones coming back. So again, it's like a team.

- Jessica D.: So when you get a better microbiome composition in the colon, we're seeing the keystone species returning in the vulvovaginal area.
- Dr. Liu: Exactly, exactly. And I'll show a case, it's a neurologic case, but I'll share with you how one probiotic, lactobacillus rhamnosus, has led to a statistically increased difference in bifidobacterium longum, even though stool composition was not different, but it was the B. longum that was associated with protection against autism. A hundred percent.
- Jessica D.: Fascinating.
- Dr. Liu: Yeah.
- Speaker 3: Thank you. We hope you enjoyed this ten-minute excerpt of Jessica Drummond's recent clinical training with Dr. Grace Liu on the gut and its impact on women's health. You can get the rest of this interview, along with over a dozen others, as well as several great bonuses and master class training from Jessica.
- Speaker 3: To access this offer, you can go to <https://km132.isrefer.com/go/IWHIVAULTEB/GLiu/>.. See you there.