



Your Functional Medicine Expert®  
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## [#11: Dr. Jill talks to Dr. Christine Maren about Preconception Health](#)

### **Text:**

Dr. Jill 0:12

Okay. Well, hello [to] everybody who's joining us live! I'm so excited to be here with my friend, Dr. Christine Marin! We are going to talk today about a topic I haven't talked about lately, but it's so important. We're going to talk about preconception health, which is basically: How do you get your body in the best shape before you have a baby so that your baby is in the best health of your life? And then, [what do you do so that] your pregnancy, your post-pregnancy period, and all of that go very smoothly? And as much as we don't have control over things, this is one thing that often women do have a choice [about] depending on their lives, their relationships, and things. But often, women do have a little window where they think about getting pregnant, and we want to talk to you. Now if you've already had children, I promise this will be relevant to you as well. And you are in for a treat because Dr. Marin is not only a great friend—we have this mutual admiration society—but also a brilliant, brilliant doctor who has really made it her life's work to help women not only with great functional medicine concepts but in the pre-pregnancy period.

Dr. Jill 1:15

I'm going to read her bio, and then we'll jump right in. She's a board-certified physician and the founder of an innovative virtual functional medicine practice in Colorado. Literally, we're just down the street from each other; we're very close, which is fun. She also sees patients from Colorado, Michigan, and Texas. She's the co-founder of *Hey Mami*, a platform dedicated to helping women through the stages of motherhood. And we're going to talk about the platform, how you can get signed up, and how you can get all her latest guides. Now, you may not see that right now when you go to the website, but we'll give you the link. We'll share all of that in this talk. But you guys are in for a treat. So you want to be sure to sign up for this because she's got—I've seen some of the back end where it's coming—amazing resources. She's put so much time and energy into this. I promise you, guys, you will love this content. And if you're a grandmother, someone who hasn't had children yet, or you know your sister-in-law is wanting to get pregnant, you can still sign up and share this content with your female friends or the male friends in your life who want to have a family as well. So just hang on, and we will introduce all of that.

Dr. Jill 2:15

She was introduced to functional medicine after struggling with pregnancy complications and recurrent miscarriages. I'm going to ask her to tell her story because, as you know, I love to talk about [one's] story. The functional medicine approach helped her address the underlying health issues associated with gut infections, hypothyroid, hormone imbalance, and mold toxicity, which you all know is one of my favorite topics. Now she's a mother of three, a professional, and has devoted her life to helping other moms optimize their health before pregnancy, thrive postpartum, and get their lives back. She's certified by the American Board of Family Medicine and the Institute of Functional Medicine. She's a compassionate clinician, speaker, and wellness advocate. I am so excited to have her. So welcome, Christine!

Dr. Christine Maren 2:56

Thank you so much for having me. It's such an honor.

Dr. Jill 3:00

Yes, I am excited to have you. And just another note for you guys: If you know someone who might like this, be sure to share if you'd like. If you know someone who would like it, you can always re-listen. This will be recorded and live. And then post your comments because I'll be watching in the background. If we have time at the end, I'll try to be sure, as I always do, either later to go through your comments or even now, we'll do a live Q&A with Dr. Maren today. So, Christine, what I love to start with is [one's] story because it drives why we do what we do. I'd love for you to tell everyone a little bit about your story.

Dr. Christine Maren 3:33

Yes. So my story: I was born and raised in Colorado and had a very holistic upbringing. I went to college in Boulder and had some hormonal issues, and acupuncture helped me a lot. I was really into a more holistic perspective. That's part of the reason I chose to go to osteopathic medical school. But really, I didn't find functional medicine until I had my own pregnancy struggles. So my story unfolded through pregnancy. [When I was pregnant with] my first daughter, I had gestational diabetes, which was super weird because I had zero traditional risk factors. I really questioned what was going on with that. Then, when my husband and I tried to get pregnant with our second child, we had recurrent pregnancy loss. Even after the first one, I had this very intuitive sense, like: "Something is wrong. Something is really wrong with me." And of course, my husband tried to reassure me, but I just knew. After the second one, it was like, "I have to figure this out."

Dr. Christine Maren 4:33

I worked with a functional medicine provider and then just delved in and had a burst because I knew professionally and personally my lives were colliding, and I also found my

life's work in that. So there was a lot of work to be done. After my second, my health got a lot better as I figured out a lot about my environmental exposures, my thyroid, my hormones, and my gut. I was feeling really great. Then I got pregnant accidentally with my third—she's a blessing, and we love her so much. But it was sort of a testament to: As you get your health back, you get your fertility back. So that happened, and now I have three. I love working with women going through those same phases, whether they're trying to get pregnant and struggling or maybe not. Maybe [they] want to optimize their health because there's so much opportunity there to have a better pregnancy. What I went through with my second, I wish I knew what I know now, because it would have been a lot less painful. I think I would have had a healthier kid too, obviously, right?

Dr. Jill 5:35

Right. It's so interesting. One reason I really wanted to talk to you—and many of my audience [members] know I'm writing a book now—[is because] I've been diving into my history and even pre-conception. I had gotten cancer at [age] 25. Looking back on my youth, [from] zero to five years old, I was vaginally born and breastfed. But my mother—I think, in hindsight—was probably quite toxic and didn't know it. Some of those toxins were endocrine disruptors like atrazine and other organophosphate chemicals that are used on a farm. Now, looking back, there's no doubt—not that it caused my cancer, but there's definitely a likely contribution from the in-utero exposure for someone that young—[someone in their] 20s—to get cancer. I really think it was related to my mother's health during pregnancy in some ways. So it's fascinating to me. And then I know some of your story. Tell us just a little bit about the mold exposure, when that happened, and how [that happened] because I see so many women who have miscarriages [when living] in a moldy home. And I think it's important, especially for my audience, to hear this because you don't think of that as a cause.

Dr. Christine Maren 6:36

Yes, totally. In my case, I had lived in a couple of different places because my husband was [in the] military and we moved around. We remodeled the bathroom, and I had a massive mold exposure, which at that time, unfortunately, I didn't realize: When you knock down a wall and you find mold, run in the other direction. Cover everything up. Call the mold remediation team immediately. Instead, I was in the bathroom amongst all this mold, and I think I had a really bad hit. In retrospect, you think, “Well, what other homes have you had where there's potential mold?” I mean, it's so common, right? So I don't know; maybe there was mold exposure prior to that. Even as a kid, my house caught on fire when I was little.

Dr. Jill 7:24

Wow. Yes, [the] same thing. Again, I grew up on this old farmstead. I remember there being part of the basement that was still dirt. There was a real cellar, and I'm like, "Oh my gosh, there had to be so much mold [while I was] growing up." And then people don't know [about mold growing] in the grain. I grew up on a farm that had grains of corn and soybean. In those bins where they store them, they are loaded with mold. It's known. The fungal content is actually measured when they take it to market. I didn't know any of this growing up, but I probably had massive mold exposure.

Dr. Christine Maren 7:54

Isn't it interesting to look at those silos, and you're like, "Of course they're full of mold!" We have all these research studies looking at cattle that are obviously harmed by the mycotoxins in their food. But of course, that thing is full of mold. It's dark and moist, and we pile a bunch of grains in there. It gets hot and then it gets cold.

Dr. Jill 8:12

And it's like this baking. I grew up on a farm with grain bins on the farm. There are aluminum silos that are just baking in the heat, and there's moisture. The corn when it comes out of the field usually has somewhat of a moderately high moisture content. So it's sitting in moisture, and they actually have to dry it out before they sell it. Again, I don't know all the process, but it's fascinating. Now, I don't often screen share, but I think it's worth [showing] really quickly, Christine. I'm going to try to share my screen. I pulled up [the data] right before we were talking about mold and miscarriage, and I want people to actually see the data. I'm going to share my screen really quickly. So look at this. This is from animal studies. It's a presentation I heard recently on the effects of mycotoxins. You can see on this T-2 all the different effects, the ergots, etc. But look at this—it's ZEN, which stands for something that Christine and [I] were hilariously trying to pronounce before this came on. It's called a zearalenone, I think. [laughing]

Dr. Christine Maren 9:04

[laughing] Just say it really fast.

Dr. Jill 9:06

Yes, say it really fast. But ZEN stands for irregular heats, which means irregular cycles—for a human equivalent—irregular menses or irregular periods, low conception rates, [and] ovarian cysts, which would be women with PCOS or frequent ovarian cysts. Ironically, Christine, my family grew up on a farm. Still, my nieces and nephews are over there. Two of my nieces are struggling with PCOS. One of them just had an ovarian cyst issue, so this is very, very, very real with the young women in the environment where I grew up. Then look at this: Abortions, which are miscarriages for animals. Because there's such a financial

gain from them having healthy cows, pigs, and everything [else], going to market, and not having miscarriages, this is a big area of research in animals. We have so much data on the mold in the grains and the foods that they eat and the outcomes like this. It's funny because there aren't nearly as many human studies on miscarriage and mold, but clearly, I see this toxin in people's urine. I have two close friends, both professionals, who have had moldy homes unbeknownst to them. One has had one miscarriage; the other has had three. This is so common. I guess I'll just say if you're listening and you've had an unexplained miscarriage and you've done a complete workup, think about mold as a possibility because nobody's talking about that.

Dr. Christine Maren 10:25

Yes, totally. The other thing on that slide you just shared talked about sperm production, which I haven't seen. So I need to look that research study up. But it's so interesting to look at too. There's also this huge male component that often gets ignored, right?

Dr. Jill 10:38

Absolutely. Again, you probably haven't heard that anywhere else, but from the mold doctors, you heard it first here. Story—I loved your story of how you've gotten into it. Let's talk just a little bit about: If someone is wanting to get pregnant, what would be the basic steps? How would you take someone through—when you see them—nutritionally [and by means of] supplements? Let's go through a little bit of a basic overview of what you would do with them.

Dr. Christine Maren 11:02

Yes. As a functional medicine doctor, I like to test—don't guess, right? I like to get data. I like to look at nutrients [in] all [of] my patients. For the most part, I'll do nutrient testing. [For] a lot of my patients—most of them—I'll do organic acid testing. Of course, much of our focus is often on the gut. When it comes to fertility and gut health, it's not like a straight line, but there's a lot to that. And gut health obviously influences your nutrient absorption, inflammation, [and] things like that. So I focus on gut health a lot [and] nutrient status. I like to look at nutrigenomics as well. A lot of people have heard of MTHFR, but there are many other genes that can help us understand somebody's nutritional needs before they get pregnant. Some of these needs reflect their ability to convert beta-carotene to vitamin A. Vitamin A as a supplement isn't safe to take during pregnancy in high doses, but sometimes we need more of it. There are good nutritional sources we might want to know about ahead of time. Of course, folate is huge, right? So we know folate is important for neural tube defects; that's been long accepted. But the other one that we miss out on is choline, so I do some of that nutrigenomics testing. There's a gene called PEMT that can influence how much choline somebody needs. Preconception choline

is probably just as important as folate. So just looking at different food sources or supplemental sources of that [helps]. I'll look at hormones a lot. I like to do a dried urine test for complete hormones [and] look for signs of progesterone deficiencies or HPA axis dysfunction, things like that. And it depends, right? It depends on the patient and their history and what they're struggling with, but environmental concerns are always at the top of my list as well. There's no better time to get rid of environmental toxins than before you bring a baby into the world.

Dr. Jill 12:53

I love that you mentioned that because, of course, I love to talk about environmental toxic load and all of that. I've gotten a lot of patients who ask, and I'd love your take on it: Say you do know you have mercury toxicity as a woman who's going to get pregnant. For mold toxicity or other chemical toxicity, we know that one of the primary mechanisms [by which] women get rid of toxicity is through breast milk. The studies have shown high levels, right? And it's a really difficult conundrum. I know what I think, but I'd love to hear your opinion. What do you do if you know you have somewhat of a toxic load—at least [an] average [level], which is most of us—and you want to breastfeed? What do you think? What would you counsel your women to do with that?

Dr. Christine Maren 13:31

Yes. Everybody's timeline is different. But ideally, if we can start a detox program six months before you even try to get pregnant... That's my ideal: At least three months. If you're actively trying and that's not going to change, just leave the toxins where they are; don't upregulate any detoxification. If you know there's a toxic burden and you have chemical sensitivity, autoimmunity, or something like that, it's ideal to do that because, as you mentioned, obviously you pass those toxins onto your baby. There are studies looking at the cord blood of newborns, and their toxic load is already astronomical, which is a little bit scary and sad. But then [there's] the breast milk. I love that you mentioned that because we detox our stool, our bladder, our sweat, and our breast milk. So it's a big deal.

Dr. Jill 14:23

Yes. I love that. That's exactly how I feel. That's why even this Zoom call and Facebook Live are so important. If you're listening and you're even thinking you might want to get pregnant in the next five years, it's relevant because the more you can do detox work or see a functional provider like Dr. Maren or myself before you ever get pregnant, the better off you will be. And then, like she said, I would always be cautious if someone is actively trying to get pregnant or just thinking [about doing so] in the next six months. I would not use that as a time to do a massive detox because that's going to still trickle on in, especially if they happen to get pregnant before they think—four months or two months.

Dr. Jill 15:02

As far as the breast milk thing, I really believe our bodies are still wise and the benefits of breast milk outweigh any toxicity unless there's an extremely high level of a certain toxin that is highly excreted in breast milk. There are situations like women who are [receiving] chemotherapy or certain agents that they're taking orally, [and] the doctors know that it's going to go into the breast milk. They will advise pumping and dumping that breast milk so that the babies don't get that exposure. There is something to that in certain situations, but in general, I still believe—[and] it sounds like you do as well, Christine—that the benefits of breast milk outweigh the risk, even though we're toxic.

Dr. Christine Maren 15:39

Yes, I agree.

Dr. Jill 15:41

Yes. So what about nutrients? There are the classic prenatal [supplements], but people don't really know the quality of them. What kinds of [inaudible] would you have them look for in their prenatal [supplements]? Or, if you have any brands or recommendations, [that would be helpful]. What would you recommend for people if they're thinking about getting pregnant?

Dr. Christine Maren 15:55

Definitely methyl folate. Many people know this already. I tell my patients: "If you pick it up and look at the back, if you see folic acid and cyanocobalamin, just put it back down. They used the cheap stuff. Move on." So your first sign of a supplement that's maybe good is that they used a methylated form of folate like a methyl or adenosylcobalamin. Basically, those are just active forms of B [vitamins], which are more closely related to the B [vitamins] that we eat versus a purely synthetic form. Many of us, based on our genetics, can't even process the synthetic stuff. There's even a dihydrofolate reductase gene (DHFR), which can leave you even worse off with folic acid. It's very interesting. [With] methyl folate and B12, I also look for choline. Choline is a huge one, and most prenatal [supplements] don't even have it or have a very little amount of it—like 50 milligrams. You're looking for [something] like 450 milligrams—around there. Sometimes you can hack choline by adding trimethylglycine. It might be slightly lower—maybe 350 [milligrams] if you add some trimethylglycine to it. But those are some of the big ones I look for.

Dr. Christine Maren 17:08

I personally prefer vitamin A as a mix of beta-carotene and retinol palmitate—some pre-formed vitamin A. That's somewhat controversial because some people will recommend against it because there are studies looking at high doses of vitamin A and pregnancy is not safe. Agreed. But we need some. Many women are deficient. I'll test for vitamin A in the blood when I'm working with patients, and I'll see that there's a deficiency. And there are certain genes that can influence that as well. So those are some of the big ones. For women who have had a history of gestational diabetes, carnitine can be helpful, [as can] a really good fish oil—something with high potency DHA. We know that omega-3 fatty acids are important not only for the mom's health but also the baby's health and brain development.

Dr. Christine Maren 17:57

Some of my favorite brands: VitaminIQ is one that I love. Our friend Sarah Morgan developed that one. They have a whole prenatal [supplement]. That one's nice because I think it's just four pills a day, and you can open the capsules. You need to add a high-quality fish oil with that one.

Dr. Jill 18:15

I'll put a link on that one for all of you listeners.

Dr. Christine Maren 18:18

Yes. And I also really like the PlusOne prenatal [supplement] from Metagenics. That one has a lot of choline. It's a lot of pills, so it's a little too much, and it's a little stinky. So some women—especially in the first trimester, if there are aversions—don't love it all the time. But I do really like that one. With patients who have a history of gestational diabetes and issues like that, I'll definitely recommend that one because it has a lot of carnitine.

Dr. Jill 18:44

Yes. Oh, this is so great because I don't see as many pre-conception [patients] as you do. I know the basics. There is Thorne and Ortho Molecular [inaudible].

Dr. Christine Maren 18:53

Yes. Thorne's [prenatal supplement] is good. I need to look at their choline.

Dr. Jill 18:58

I just looked it up. It's not nearly as much. As we were talking, I pulled it up. And with Ortho [Molecular], I don't know; I'm curious. I like that they have a pack that has DHA in it.



So if a woman is like, "I don't want to have all these things," they still take two or three pills, but they're in a little packet.

Dr. Christine Maren 19:13

Xymogen is pretty good too, but again, [there's] not enough choline [in it]. I wish they would add more. Even the American Medical Association has come out and [basically] said, "Hey guys, you need to put more choline in your prenatal" [supplements], but most companies haven't. So the PlusOne and the VitaminIQ are the two that have a good amount of choline. I don't honestly know of any others that have the recommended dose of choline.

Dr. Jill 19:38

Now, am I right to remember that eggs are also a good source of choline?

Dr. Christine Maren 19:41

Totally.

Dr. Jill 19:42

Eating farm fresh eggs if you don't have a vitamin [supplement] with choline [is an option]. You could definitely eat your healthy breakfast of eggs in the morning.

Dr. Christine Maren 19:49

Exactly. Yes. Egg yolk is by far and away, I think, our best resource in the American diet for choline. Organ meats are also a great source of choline. But not a ton of people eat organ meats or want to when they're trying to get pregnant or [in their] first trimester of pregnancy.

Dr. Jill 20:06

That's a whole other side now, but I'm curious: Do you ever fix liver for your family?

Dr. Christine Maren 20:10

Oh my gosh. I tried. So this is what I did: I ruined an entire batch of this delicious bone broth. And then our friend, Shelese, told me how to prepare it and hide the organ meat in there. So I cooked chicken livers, and then I put them in my Vitamix and blended them up with the broth. It sounds disgusting, and it is! It turns out: It is disgusting. But it really depends on how much [your] ratio [is]. If you just put one chicken heart [in], [that can

work]. You don't even need that much organ meat. It's really nutrient dense; you can get away with a couple of ounces.

Dr. Jill 20:40

But you put [something] like 12 chicken livers in there, and it was not so good.

Dr. Christine Maren 20:42

Oh yes. It was way too many. You need [something] like one chicken liver in there. So I haven't gotten my family to eat it again. What about you?

Dr. Jill 20:52

I can honestly say I've never eaten liver. I'm kind of embarrassed because I recommend it to patients for low iron or those kinds of issues. The one thing is—it has no relevance, but in my brain it does—it's almost like when you want to do a fecal microbiota transplant and you want a clean stool donor. To me, it's the same as a clean liver. Like, what liver [exists] nowadays in our environment [that] is clean?

Dr. Christine Maren 21:15

I know. I struggled with it for so long, and it's because we're not naturopaths that we don't eat liver. It's really hard for us. We've just got to admit it.

Dr. Jill 21:27

Totally right. You're right: All my naturopathic friends are like, "Oh, I just fry it up with onions, and it's great!" It's like coffee enemas and liver, not for the allopathic [doctors].

Dr. Christine Maren 21:39

We're working on it, though. We're working on it.

Dr. Jill 21:41

We're working on the coffee enemas and all that good stuff. How did our conversation go so awry? [laughing]

Dr. Christine Maren 21:46

I know.

Dr. Jill 21:46

Let's talk about the thyroid.

Dr. Christine Maren 21:49

Yes, thank you.

Dr. Jill 21:51

I'm not an expert, but this is the one thing I've seen do magic. Tell me about thyroid health.

Dr. Christine Maren 21:54

Thank you for bringing that up because that's the other huge thing I focus on with pre-conception patients. I'm on thyroid medicine. Everyone in my family is on thyroid medicine. I come from a family with Hashimoto's and Grave's [diseases] and all the things. So yes, the thyroid is a big deal. Luckily, when people are talking about fertility, we have a more narrow reference range with regard to fertility when we look at TSH. So if you look at a basic lab, TSH goes up to like 4.5, sometimes a little higher, which is way too high. Most people feel terrible with a TSH of 4. Not everybody, right? But I felt terrible with a TSH of 4. So anyway, with regard to fertility, the studies would support a lower or more narrow reference range with an upper limit of normal—2.5. I scrutinize people's thyroid labs really closely. But not only TSH; we [also] look at free T4 and free T3, and reverse T3. So if I have a patient and maybe their free T4 looks okay but they have a low free T3, they can still kind of be functionally hypothyroid. It's not the thyroid's fault. It's a conversion problem. So sometimes they're under-converting between T4 and T3, and their T3 will be somewhere in the 2 [area], which can still be in the reference range. But it's too low, right? Free T3 of 2.2 is still "normal" on the labs, but that is the bare minimum to survive if you ask me. So looking at free T3 is a big deal, and then reverse T3.

Dr. Christine Maren 23:17

So if somebody's making a lot of reverse T3, that's when I look at the big picture. Like, "Why are you shunting all of your resources to reverse T3?"—which is like the brakes. I think of it from an evolutionary perspective: Why do we make this thing? Inflammation, toxins, stress, not enough calories—[with] all of these things, we want to press on the brakes and hide in our cage, and that's not going to get anybody pregnant. So we just have to address: What is it? Maybe it's stress; maybe it's a problem with the gut. There are so many other problems that can influence that. Or maybe it's a problem with the environment.

Dr. Jill 23:54

Yes. Oh gosh, I think that's so important. Again, you're the expert here, not me, but I've dabbled enough in it. I remember way back when they first started functional medicine, and I had like a 45-year-old woman who wanted hormone balance [and] thyroid health. I was like, "Okay, I can do this." We didn't talk about babies. She is 45 [years old at the time]; she thinks she can't get pregnant anymore. And I fixed her thyroid; I fixed her hormones. She came back a few months later and was pregnant with twins. And it's so funny because now I literally get Christmas cards from her every year because she has these amazing twins that she was never expecting—surprise babies. And she's so happy. But I remember that at the time she was angry. I was going to say another word, but she was so mad. The first thought of it was like: "I'm 45. I've got twins. What am I going to do with my life?!" It turned out to be the best thing, and she's so happy. She still loves me and sends me Christmas cards to this day.

Dr. Jill 24:43

My lesson was: "Wow, you've got to know where women are because often they will think they can't get pregnant." And they'll be in their late 30s or 40s, or they've never used birth control and they've never been able to get pregnant. Again, I was not thinking about conception at all; I was thinking about overall health. But the beautiful thing is that when we treat mold toxicity, environmental toxicity, the thyroid, [and] hormones, of course the body wants to get pregnant. We're made to conceive if we're in a relationship and having intercourse. It was funny because it shouldn't have surprised me, but I still remember her in my early days as being such a shock because we weren't expecting that. But it's beautiful.

Dr. Christine Maren 25:23

I have a patient like that as well, and she was actually on low-dose naltrexone. So now when I give people low-dose naltrexone, I'm like: "[Be] careful because it might improve your fertility." And that might be a great thing, but that might not be what you desire, right?

Dr. Jill 25:37

Absolutely. You know, we didn't have this on our list to talk about, but I always like to mention it, and I'd love any insights you have. Do you think there's anything to do... Is there emotional work that needs to be done over there? What kind of mind, body, [and] spirit pieces have to do with conception? Is there anything in particular that you recommend?

Dr. Christine Maren 25:52

Yes! Huge. Gosh. I'm trying to rack my brain about the most helpful things. I think for everybody, it depends on the trauma. I think part of stress and relationship and

relationship trauma... Like, how many people have met somebody who has an interpersonal relationship that's an issue, whether that's their partner or somebody else? So I think that that can induce a lot of issues. But I don't know; I don't have any specific work I love to do aside from addressing that with either your therapist or [doing] yoga or whatever it might be.

Dr. Christine Maren 26:32

What about you? Can you think of anything?

Dr. Jill 26:34

Yes. Well, the one thing I was thinking about was just the fact that a lot of young couples are like—I have a dozen of these right now—"Okay, we're going to get pregnant next year." They're the type A's, and they have a plan, and they think this is how it's going to happen. And whenever you have a plan and you're so type A that you're that structured and controlled, it never happens according to plan. So that surrender and release [mentality is needed]. And I think it affects the cortisol axis the most. What happens is they're under stress and they're producing too much cortisol, and that can affect fertility as well. So usually it's that surrender piece [that's necessary]. And of course, [talking] with a therapist [can help]—I'm not the expert there. But getting them to kind of relax their plan and let go and surrender—often the moment they start to surrender, it happens magically.

Dr. Christine Maren 27:16

Yes. That's such a good point. I love that.

Dr. Jill 27:19

One of my family members—I won't reveal any names, but I have a lot of sisters-in-law—had a natural pregnancy. And then [she] couldn't get pregnant for many years—three, four, five [years], [and later] adopted [a child]. We did some interventions with testing and found out she was gluten intolerant, and we convinced her to go off gluten. Immediately she got pregnant. She has four children now. We didn't talk about that, but that's a big deal, isn't it? Celiac [disease] obviously [is a factor] because this affects the immune system, and the immune system can affect fertility pretty dramatically. There are a lot of autoimmunities that can prevent you from conceiving. So if you are stuck and you've looked at thyroid, hormones, [and] all these other traditional things, [but] you haven't looked at autoimmunity, that could be your thing. Often, if someone wants to get pregnant but hasn't been able to, I'll say: "Try going gluten-free. It won't hurt you." I don't often even test. Sometimes I just say, "What are your thoughts on gluten as a trigger?"

Dr. Christine Maren 28:13

Yes, for sure. I mean, that's my personal story too. All around that same timeframe, I went gluten-free. And I think part of the reason I had a successful conception was that. But there can be so much underlying inflammation from food sensitivity, so I think it's important to address. But I always tell my patients that—with the exception of celiac [disease], of course, [which is] an autoimmune condition—if you're reacting to foods, they should be benign. So what's going on in your gut? So I just go back to that gut health piece. But absolutely, yes, removing the foods that are more inflammatory—gluten, and sometimes dairy—

Dr. Jill 28:44

Yes, and sugar, usually.

Dr. Christine Maren 28:47

Yes. Sugar, for sure.

Dr. Jill 28:48

Gluten is the number one [thing] if there's only one thing they can have. We negotiate. The three are gluten, dairy, [and] sugar. And if we go out to seven, it's gluten, dairy, sugar, egg, soy, corn, and alcohol.

Dr. Christine Maren 28:59

Yes. You can name those really quickly. Yes, totally. Agreed.

Dr. Jill 29:03

Let's talk just a little bit about the gut because I love talking about the gut. You mentioned that if someone has food sensitivities, part of the reason for that is because they have permeability. It's like the grout between the tiles that line the gut has dissolved, and you have this pathway between the gut lumen and the bloodstream. And if every time you eat, you have no grout, and you're leaking contents of either bacterial coatings like lipopolysaccharides, corn antigens, wheat antigens, or sugar antigens into the bloodstream, this creates an immune response. What's interesting is that it actually relates to the pandemic right now because the same cytokines that are stimulated by that crossover of either foods or bacteria—it's IL6, it's TNF Alpha—are the same party of cytokines that happens in the viral infection that causes all this inflammation in the body and lung damage. So this is like a systemic trigger. And it can happen in the brain from a leaky brain. It can happen in the gut.

Dr. Jill 29:57

But this systemic inflammatory response, even if you don't have autoimmunity in the face of a leaky gut, is a trigger for things to happen like not getting pregnant or having miscarriages, or depression, anxiety, insomnia, heart disease, obesity, diabetes, etc., etc., etc. And I even wonder, Christine—who knows, this is completely postulatory—did you say you had gestational diabetes with your firstborn? There is a clear link between endotoxemia [and diabetes], which is what I'm talking about now. It's that crossover of the bacteria into the gut due to a permeable membrane. There are highly correlative studies showing that probably the root cause of almost all diabetes, obesity, and heart disease is related to this crossover. So gestational diabetes is another microcosm of diabetes, and I wonder if that happens in a woman who has a more permeable gut. I don't know, but I wonder.

Dr. Christine Maren 30:47

That's a really interesting question. I think that, from a personal perspective, yes. Totally. I was chasing my blood sugar for years, even when I was trying to get pregnant. I would be checking my blood sugar a lot. So [with] gestational diabetes, I learned how to check my blood sugar four times a day, and I would monitor it like a hawk. I ate very specific foods and was very careful because I was not going to go on medication. And then, when I was trying to get pregnant and I was having recurrent miscarriages, my blood sugar was so wacky. And it wasn't PCOS. Of course, polycystic ovarian syndrome is another whole piece of infertility that can cause issues because it's really a metabolic thing. But yes, I was chasing my blood sugar all over the place. And I think it was probably largely related to endotoxemia from gut issues. But I see patients too where you're like, "Uh, your blood sugar shouldn't be this high." Obviously, it's not insulin resistance; their insulin is totally normal. But their hemoglobin A1C is pretty high, and they're having these peaks and valleys with their blood sugar. It's like, "What's going on?" There's this underlying sort of inflammation and cortisol, or maybe it's lipopolysaccharides. I don't know. But yes, that's an interesting thought.

Dr. Jill 31:56

The other thing you mentioned in your story and in my friend's story is the mold. We know mold will cause a couple of weird things to happen. It'll lower MSH. In mouse models, low MSH produces Crohn's and colitis—so, massive permeability and inflammation. You actually need MSH to have the tight junctions [and] the grout. The other underlying thing that can happen in mold is that the trigger of the cytokines causes leptin resistance and kind of induces a prediabetic blood sugar issue/state. So it's interesting because maybe some of these patients too would have a little mold exposure or leaky gut issues, and they're probably all connected.

Dr. Christine Maren 32:33

Yes, totally. All of the above with their fungal dysbiosis.

Dr. Jill 32:37

Yes. And then there's Candida. We didn't even talk about that.

Dr. Christine Maren 32:38

I know this well. Yes.

Dr. Jill 32:40

Me too. Me too. And this is relevant. Again, I'm not the expert [when it comes to] pre-conception. I do some of that, but that's not my primary thing like [it is for] Dr. Christine. [With] post-pregnancy [women] or children and parents—I see them in the office—what I see is very interesting. [If] I see a seven-year-old kid and their mother, they often have the same patterns of dysbiosis. If they have fungal overgrowth, klebsiella, or streptococcus, they will often have very mirror images. And of course, with a vaginal delivery, the mother inoculates the baby. So then the baby comes into the life [outside of the womb] with whatever flora the mother has. So what would you say to pre-conception [care] whether with probiotics or other recommendations [for] the mother's gut health?

Dr. Christine Maren 33:20

Yes. That's where I love doing organic acid testing. I do GI mapping, like stool testing, to see what's going on. Sometimes people don't even know they have gut problems. But obviously, [for] somebody who has digestive symptoms, somebody who has a food sensitivity, somebody who has autoimmunity, I know there's something going on with the gut. And we know that by addressing that, you'll have better fertility but [also] better pregnancy outcomes because, like you said, the baby is going to inherit that microbiome. I can just say from a personal perspective that my middle son has eczema and digestive stuff; it's all so obvious that it came from me. My first daughter is fine. She can eat gluten, and she's fine. [But] my second one, he can't. So it's just very obvious to us to look at the difference. And their health is totally reflective of the difference in my health when I conceived. So for women who want to get pregnant or moms who want to have another baby, gut health is complicated, right?

Dr. Christine Maren 34:23

To simplify it, it's like that four-R's program: Find out what the infection is [and] remove it. Remove any offending foods, which are usually gluten, dairy, sugar, maybe eggs, corn, and others, and then replace enzymes. Digestive enzymes are so important; maybe stomach



acid has been lost. But all of that helps remove the infections. Some of the really common infections that we see are bacterial overgrowths like SIBO, which can influence nutrients as well. People often have low B12 when they have SIBO, fungal overgrowth, or candida overgrowth, which is largely unrecognized in the conventional paradigm. Or, there are other kinds of infections [associated] with dysbiosis. Dysbiosis is incredibly common. But sometimes parasites [can be a factor]. So remove and replace.

Dr. Christine Maren 35:07

In terms of probiotics, it depends, because if you start a probiotic and you feel worse—I mean, you're the expert here—it's probably because you have bacterial overgrowth or something else going on. So I think we are both fans of MegaSporeBiotic. That is one where I think there's a big question: Is this safe to use during pregnancy? I personally think it is, but it hasn't been studied, right? So probiotics and prebiotic-type foods are great for somebody who doesn't struggle with gut infections. How to increase your gut bacteria is to just eat a lot of prebiotic foods [and] foods high in probiotics like kimchi and sauerkraut. Avoidance [is also important], right? Most of it is the avoidance of all the junk that we get exposed to [and] the chemicals. Gardening can be great for your gut. Pets can be good for your gut. We're going to get a puppy just for my gut. I'm like, "Yes, okay, I'll get the puppy; it's good for my health." There are so many different influences. But one thing I think about too is the hygiene hypothesis. Have we ever been more hygienic than now? But [according to] the hygiene hypothesis, it's not good for our gut microbiome. We're scrubbing everything down. We don't want to touch anything. While that might be important right now, I think there are also side effects.

Dr. Jill 36:24

Oh gosh, you brought up so many good points. I would love to comment. The spore probiotics haven't been studied in pregnancy. I agree with Christine; I definitely still prescribe them and have patients take them. Bifidobacteria tends to be very prevalent in infants. So if you have a concern about probiotics or your baby needs more probiotics, there are bifidus strains that are for infants or children that you can get chewable. Or if it's a powder, you can put it in the mother's breast milk or even on the mother's breast so that the baby gets extra probiotics. And of course, if the mom's taking probiotics and breastfeeding, she's going to transfer that into her breast milk, so you don't really need to give the breastfeeding infant extra probiotics if you give it to the mother. The soil-based probiotics haven't been studied as well, and I feel like there might be a more dangerous zone. The soil-based [probiotics] are not the same as spore-[based probiotics]. The spore [probiotics] actually have been studied—maybe not in pregnancy, but there are a lot of human studies. So I always lean towards purely spore-[based] probiotics versus soil-based [ones], especially in pregnancy. And I do find that people with SIBO/CIFO, those gut disorders, tend to do better on the spores than just pure lactobacillus. So often, I'll kind of

shift that direction for the tough guts. And then, let's see, we talked about probiotics, gut pre-conception, gut health. All these things are so critical—if you're thinking about it. And it's going to affect your life in a good way no matter what. So treating that gut is really, really core. Awesome. Oh my gosh, this is so fun. Let's see, we talked about nutrients, toxicity, mold, breast milk, and breast health. What do you recommend for the length of breastfeeding?

Dr. Christine Maren 38:01

Yes. I think it just depends. I fed my first daughter until she was two and a half. With my son, I had health issues, and I stopped when he was 11 months. And then, [with] my third [child], I stopped it when she was 12 months. I think it would be awesome if women could go [for] two years; that's amazing. But the thing is, it's really taxing on our bodies. And there is already this depleted state for many women. Many women already go into pregnancy just at the brink, when they're almost depleted of a lot of nutrients and stressed out to the max. Then we add pregnancy to it, and we deplete things a little bit more. Then we have a baby, and we go through this very difficult labor—that is, a labor—or surgery. Postnatal depletion is a real thing. And then you're breastfeeding on top of that. So it's really about sort of how resilient mom is and how much she can take. It's such a personal decision. It's a special bond with your baby. And some women can't breastfeed. For women who can't breastfeed, I'm always suggesting: "Thyroid—let's look at your thyroid really closely." We can talk about post-conception labs too because I think those are often ignored. But anyways, I think postnatal depletion is a real thing. For me, I couldn't breastfeed past 11 months with my second one. I did everything I could to keep my supply up, but it was to the detriment of my health.

Dr. Jill 39:26

Yes.

Dr. Christine Maren 39:27

So, you know, there's like—

Dr. Jill 39:28

Right, there's a fine line.

Dr. Christine Maren 39:29

It's a fine line.

Dr. Jill 39:30

I love that you're bringing that up too, because what I see a lot of is shaming—shaming of new moms. And there's too much of that because we have this idea that we have to have the perfect career, the perfect baby. Postpartum, we're supposed to be running in a few weeks and all this kind of stuff, or breastfeeding until [the child is] five years old. It's some ridiculous kind of thing that is not even based on reality. So I think, if anything, we've given you permission to be yourself. And granted, if three months is all you can do, that's fine. You're going to give your baby at least three months. And if it's a year, great. If it's two years, even better! But there's no shame here. And that's really important because so many new moms are totally burdened. Already, their hormones are out of whack, and we'll talk about that too. But the postpartum period is such a tough period for so many reasons. How would you support your postpartum moms' best? What advice would you give?

Dr. Christine Maren 40:19

I like to give my postpartum moms a lab order. I say, "Four to six weeks, have somebody come to your house and draw your labs." Things might be a little different during the pandemic. But autoimmunity, as you know very well, we're at high risk for that postpartum. We don't necessarily know why. I think there are a lot of different reasons, including having another human's DNA inside of us. But there are a lot of different theories as to whether it's just a great hormonal shift or whatever it might be, or stress because we're not sleeping because we're breastfeeding and we're nutrient depleted and we're not sleeping at night and we're waking up every two hours to breastfeed—whatever. But autoimmunity is a big one, and thyroid, too. Postpartum, there are a lot of different things that can happen with our thyroid.

Dr. Christine Maren 41:04

Postpartum thyroiditis typically doesn't happen at four to six weeks—that's like four to six months—but it's pretty terrible when it happens. People feel super anxious. Postpartum anxieties are already a real thing, and then you add [something] like hyperthyroidism onto it, and then they just crash and they're super tired. Their breast milk sometimes crashes. So I think it's just important. I think new moms need to know it's not just because you're a new mom all the time. I think that too often their concerns are dismissed as, "Well, you're a new mom." Yes, it's hard. But it's extra hard if you have physical struggles with your health. So the way I support my patients postpartum is that I give them that lab order. We check their labs [from] four to six weeks. And we just try to maintain really good nutrition and really good supplementation based on what they need. And of course, I always encourage them to get all the help they can get. It's not easy being a new mom.

Dr. Jill 41:59

Right. I love that you say that. Whether you're going into it, you've experienced it, or you never do [but] you have friends or family who are, there's a lot of compassion needed. I don't envy [those that are going through it], especially nowadays. Years ago, when the family was all around and they had all this help, the grandmother lived next door [or] they weren't working maybe full time, [it was so much easier]. There are so many differences now with the expectations. Even just releasing those expectations—it's a hard time. And it's okay to get help, and it's okay to not be perfect. All of these things are so important. I'd love to talk about your new company, where people can find you, and what kind of resources you're going to be putting out. Tell us a little about this new venture.

Dr. Christine Maren 42:42

Yes. So my new venture is with a very dear friend of mine, Dr. Alex Carrasco. She's in Austin. We got to know each other in Austin when we were both functional medicine practitioners there. But Alex is also the mom of three, and she's an MD; I'm a DO. So it's called Hey Mami, like the Latina 'mami.' It's a bit of a pickup term, but in a sweet way. So Hey Mami is going to be all things preconception, pregnancy, postpartum, and into mommyhood. I mean, postpartum doesn't end at six months or a year, right? I'm still postpartum. My baby is two and a half [years old]. So that goes for a while. But our mission is really to support women in their health during these phases of life and encourage women to take care of themselves for a healthier and happier mommyhood. That's really the idea behind it.

Dr. Christine Maren 43:35

We're launching soon. Right now, we have some awesome resources if you go to our website. It's just HeyMami.com. We have a really great nutrition site there, so you can download our one-page nutrition tear-out sheet. But we're going to have some really awesome definitive guides on there that will walk you through sort of everything you need to know before you get pregnant or everything you need to know when you're pregnant. Often, we find that a lot of the resources aimed at people who are trying to get pregnant or are pregnant are really fear-based. We're not into that. We're more about empowering women; like, these are the things you can do.

Dr. Jill 44:10

I have seen some of your stuff previewed, and you guys are in for a treat. Like I said at the beginning, I just want to repeat: I actually put the link in, so if you're watching, you can go below and click on that and get your resources and stuff. But stay tuned, because this is going to be big. I don't see anyone [else] doing this well, so I see this as a credible resource. I think it'll really take off because it's a needed thing. I think whether it's someone like me who needs it for giving [information] to patients or someone who needs it for their

daughter or sister—it doesn't mean that everybody's in that conception phase, but everybody knows someone who is—share that with the people that you love who might be in that phase. Very cool. We haven't talked at all about the virus/pandemic. People are probably pretty bored by that.

Dr. Christine Maren 44:49

Yes, right.

Dr. Jill 44:51

Right? I'd love to know—before we kind of sign off—[about] any personal life lessons or things [you might have] at this time. It feels like a time—at least personally and for most people I talked to—of transition and growth. And there's a lot of good going on and a lot of bad going on. But what's been your takeaway? Any life lessons through these last several months?

Dr. Christine Maren 45:10

Yes. And it's not just me; I work with a lot of moms, and I call a lot of them, and they're like, "I'm actually kind of happy." [whispering]

Dr. Jill 45:18

Me too. Secret handshake, right? Like, "Are you okay?" "I'm actually really happy."

Dr. Christine Maren 45:20

I'm secretly enjoying that I don't have to drive my kids all over town, go to soccer practice, run and put something in a crock pot, and then come back. So I think the takeaway is really: Things aren't going to go back to normal. They're not going back to normal, but we have the opportunity to create our new normal. And what is that going to look like? I've tried to really sit down and think about: What's my new normal going to be? And how do you keep yourself from getting back into the same habit of go-go-go, rush-rush-rush, and really sit down, quietly enjoy the people around you, and not have to drive all over town? I feel like life is more simple, right? We're not getting our nails done or whatever done. This is the first time I've put jeans on and a dress shirt on in like three months [inaudible]. But it's nice, you know?

Dr. Jill 46:15

[inaudible]. Sorry guys.

Dr. Christine Maren 46:16

Yes, that's okay. I don't blame you. It's kind of nice to just let go of some of the expectations. I think we got a little wrapped up in things.

Dr. Jill 46:29

I do too. I could not agree more, and it's funny because I think the majority of people [probably do too]. Like I said, it's almost like a secret handshake: "Hey, are you okay?" You know, you don't want to be insensitive if someone is suffering.

Dr. Christine Maren 46:38

Absolutely. I mean, I know there are people who have lost [a loved one] and are suffering.

Dr. Jill 46:41

Right.

Dr. Christine Maren 46:42

That's very real.

Dr. Jill 46:44

But on the other hand, there are a lot of people who have found a new way of life, and there are some good things. And I would say the same for me. I traveled all over the place before, and I'm like, "I like being home." I don't know if I'm going to do that again. I might do it to some extent, but not every weekend. That was too much, and my system is happier. The other thing that's interesting [is that] you mentioned nails and all that. Well, I had my massage therapist and my physical therapist—all these therapies. I was trying to improve myself and make sure that I was healthy, and all that stopped. I'm like: "I'm good. My back is good. My [inaudible] is good. I'm fine with that." Probably [for about] four to five hours a week, I would do [things like] personal counseling, physical therapy, training—all of these appointments with people to help me. And I'm like, "You know what? I'm good!" And I saved [something] like five hours a week.

Dr. Christine Maren 47:29

I know. And that's a lot of time. I can totally relate to that. And I feel like I'm actually sleeping better. So it's like, "Huh. Interesting." Well, I guess we've all got [something] like a little reset button. We didn't ask for it, but I think we got it anyway.

Dr. Jill 47:40

I love it. And hopefully, we can get the good stuff in. Well, it has been so fun to talk to you. And I'll make sure that your website [and] your resources are all linked here. And thank you for taking the time today to share. It was so [much] fun.

Dr. Christine Maren 47:54

Thank you for having me. It's always fun to talk to you.

Dr. Jill 47:57

You're welcome.

Dr. Christine Maren 47:58

And I always learn something every single time, so I should bring a notepad when I talk to Jill.