



## Episode 980: Beyond Probiotics: How Fermentation Fuels Radiant Skin and Gut Bliss With Hannah Ruhamah

Child: Welcome to my Mommy's podcast.

**This podcast is brought to you by LMNT**, and this is a company you might've heard me talk about before, and I really love their products because proper hydration leads to better sleep. It sharpens focus, it improves energy, and so much more. But hydration is not about just drinking water because being optimally hydrated, a state called euhydration is about optimizing your body's fluid ratios. And this fluid balance depends on many factors, including the intake and excretion of electrolytes, which many people don't get the right amounts of. Electrolytes are charged minerals that conduct electricity to power your nervous system. I talk a lot about nervous system on this podcast.

They also regulate hydration status by balancing fluids inside and outside of our cells. LMNT was created with a science-backed electrolyte ratio of 100 milligrams of sodium, 200 milligrams of potassium, and 60 milligrams of magnesium with no sugar. Since electrolytes are a key component of hydration, here's what happens when we get our electrolytes dialed in. We have more steady energy, improved cognitive function, suffer fewer headaches and muscle cramps, we can perform better for longer, and especially the support fasting or low carb diet because when we stop eating carbs like during a fast, the absence of insulin allows the kidneys to release sodium.

So replacing that lost sodium with electrolytes can help you feel good on a fast. Since LMNT is zero sugar, it also doesn't break up fast. Electrolytes are also important for maintaining blood pressure, regulating digestion and proper fluid balance. Keeping skin hydrated, which is a big one that I feel like often gets missed and so much more. I feel like proper electrolytes is a missing piece for a lot of people and I love LMNT's new canned drinks, which are sparkling water with all the same ratios and minerals I just talked about, and they are delicious. You can check it out and learn more at [drinklmnt.com/wellnessmama](https://drinklmnt.com/wellnessmama) And at that link you will receive a free sample pack with any order.

**This podcast is brought to you by Hiya for children** and especially I love to talk about their new greens line for children. Now, I have tasted these vitamins and they're delicious, and my kids are the ones who really love them though. And I love that they're getting the nutrients they need without the sugar because most children's vitamins are basically candy in disguise with up to two teaspoons of sugar and dyes and unhealthy chemicals or gummy additives that we don't want our kids to have.

So Hiya created a superpowered children's vitamin that's chewable, without the sugar or the nasty additives and it tastes great. My little ones love it. They especially are designed to fill the most common gaps in modern children's diets to provide full body nourishment with a taste kids love. And it was formulated with the help of pediatricians and nutritional experts and pressed with a blend of 12 organic fruits and vegetables, then supercharged with 15 essential vitamins and minerals, including vitamin D, B12, C, zinc and folate among others.

It's also non-GMO, vegan, dairy free, allergy free, gelatin free, nut free, and everything else you can imagine. I love that they test every single batch with third party testing for heavy heavy metals and microbials in a qualified GMP compliant lab using scientifically validated testing methods so you can be completely at ease knowing it's safe and nutritious and it's designed for kids and sent straight to your door so you don't have to worry about ordering.

My kids really like these and I love that refills show up on schedule with no stress. Also, again, honorable mention to their new greens because if you are tired of battling your kids to eat more greens, their Daily Greens Plus Superfoods is a chocolate flavored greens powder designed specifically for kids and packed with 55+ whole food ingredients to support kids' brains, their development, their digestion, and kids actually like it. We've worked out a special deal with Hiya for the bestselling children's vitamin. Receive 50% off your first order. To claim this deal you must go to [hiyahealth.com/wellnessmama](https://hiyahealth.com/wellnessmama). This deal is not available on their regular website. To get your kids the full body nourishment they need.

Katie: Hello and welcome to the Wellness Mama Podcast. I'm Katie from [wellnessmama.com](https://wellnessmama.com), and I am here today with my in real life friend, Hannah Ruhama Crum, who is the Queen of Kombucha, the Kombucha mama, as she calls herself, to chat about two different really amazing topics. The first being beyond probiotics, how fermentation can fuel radiant skin and gut health, and so much more.

And Hannah is my go-to on this topic. She's affectionately called the Kombucha mama. She has been brewing kombucha for over 20 years and educating others about this as well. She's also the author of the *Big Book of Kombucha*, which many people call the Kombucha Bible. And which has inspired thousands of people to start brewing kombucha at home, and she also offers fermentation kits and starters at her website.

I'll link to all of that in the show notes. In this episode, we go deep on the many benefits of these ferments beyond just the probiotics. We often hear about to spell some myths about the sugar content, how we can use them in our skin, how they promote gut health, and so much more. There are a lot of fun facts in this episode that I did not know.

So let's learn from Hannah. Hannah, my friend. Welcome. Thank you so much for being here.

Hannah: Thanks for having me, Katie.

Katie: Well, you are by far the friend I know who knows the most about kombucha and fermentation, and I feel like your wisdom extends far beyond what most people think of and know when it comes to these things. So today we're actually going to get to record two episodes. You guys stay tuned for the second one, going deep on the lesser known benefits of these beautiful ferments and how they can support our body and even our energy in so many ways we may not realize.

I know we could talk for literal days about this and still not cover everything, but in this particular episode, I would love to dive deep on kind of going beyond just the probiotics, which I feel like are what get talked about the most. I'm sure we'll talk about those also, but how fermentation and the many, many things included in that can really help support our skin and our gut and so much more.

So. To start off, I would love for you to kind of give us a primer on what's happening in fermentation and how fermentation can make nutrients more bioavailable, and how this then impacts health and beauty and kind of every area of life.

Hannah: Well, what's really cool about fermentation is how old it is. It's something that's evolved with mankind. We are what I call bacterial sapiens. I feel like this term encapsulates our very intimate relationship with the microbes that live inside and on our bodies, and of course, cover every surface on this planet.

I hope I'm not creeping anybody out. Um, but fermentation and these microbes were originally for preservation. And so in ancient times, we didn't have refrigerators. We had to find ways to preserve our food so that we could enjoy them at different times of the year when there were fewer food sources available such as winter.

And in order to do that, microbes and food work so well together that they create an acidic environment where molds and other things that could harm us are not able to grow. What this then has allowed is that not only is basically fermentation is digestion that's happening outside of the body. So when we think of digestion, we're thinking, okay, I'm chewing something.

I'm putting something in my body. Microbes and acids and things are breaking those down into components that then can be utilized by the many microscopic creatures in my body. Well, that's what's happening in your fermentation jar. And when that happens, it's not only digesting these foods, it's enhancing their nutritional profile.

It's increasing the vitamin C, and it's also doing a, a protective mechanism, especially when it comes to soaking grains or soaking seeds or nuts. They can sometimes have what are called antinutrients such as phytic acid, that could have a deleterious effect on the body, removing nutrients from the body, which obviously wouldn't be good for us. by going through a soaking or fermentation process, a sprouting process, those nutrients are converted into something that then our bodies can utilize and don't have that same negative impact on us. And this is why having fermented soy can be very good for us, whereas eating a lot of unfermented soy may not have the same impact we're looking for.

Katie: Yeah, it's so fascinating. I feel like bacteria gets a bad rap, especially in kind of like the post pandemic world, and everybody's so afraid of bacteria. I love that you used that word, bacterial sapiens and how we're meant to actually interact with these and how they're present everywhere. I know I wrote years ago about how statistically gardeners live longer, and I think there's a lot of reasons for that, including more natural light exposure. They're hopefully eating the food that they're growing, they're getting fresh air. But I think also the bacterial interaction with the soil and the soil-based organisms is also really helpful there.

And it seems like the kind of not needing to use fermentation to preserve food anymore has also had the byproduct of us not consuming these as much and removing a lot of this bacterial exposure from our diet.

And it seems like that, especially coupled with the widespread use of antibiotics, might be even changing our guts and our bacterial kind of interactions with the world in a way that we know might not be the most beneficial.

Hannah: Absolutely correct. I would say that fermented foods are our bacteriological heritage, and it's something that we've lost through all of the mechanisms you've just described. And out on top of that, you know, the medicalization of birth and you know, if a baby's born through a C-section, which is sometimes necessary as opposed to the canal, they're not getting the same infusion, they're getting an infusion of different microbes that can actually lead to increased incidents of allergies and other things because we're so beautifully designed that when babies are birthed through the vaginal canal, they receive that initial inoculation that they need so that they can digest the breast milk so that they are building the immune system in the way that they need to, uh, as they're getting those first nutrients in the world.

And that, again, breastfeeding versus formula. So when we're breastfeeding, we're also passing on that bacteriological heritage. Now, of course, what's been broken along the way is the exposure to toxins in the environment to these different practices you described. And so, even if you do have a vaginal birth and breastfeed, sometimes you're still not passing on as much of that bacteriological heritage as you'd like because we're starting from a place that isn't as robust and diverse as our ancestors.

And so this is where I think fermentation offers a tremendous amount of hope because when we start to include these foods, and there are many of 'em, right? From kefir to yogurt, to kombucha, to Tempe, to sauerkraut to kimchi, right? You could go on and on. Um, we start to reintroduce diversity back into our bodies, and out of all of the human microbiome research that's taken place over the last quarter of a century, what they, what they ultimately have determined is it's diversity that creates the most robust ecosystem for the human body. So there's not like, you know, two or three specific strains, which is unfortunately what happens in processed fermented foods, right?

So when you, when you're buying a yogurt at the store, it. When you look on the back, you might see four or five strains listed. In the wild, they could have 20, 30 different strains. And again, not, I think it's beautiful. We don't necessarily know or have a prescription for exactly what those should be because that means that our bodies are choosing and selecting for the microbes that are best for us.

I don't think we need to know every single tiny nuance about how we work in order for us to flourish, because clearly we have for millennia.

Katie: Agreed, and I feel like this falls also under the umbrella of something I talk about a lot, which is Nature Deficit Disorder. I think actually a large number of the problems we face in the modern world can go back to that big term of, we're kind of divorced from nature, from sunlight, from fresh air, from these bacteria, from movement, from all these things that we're designed as humans to do. And to your point, from literally from birth and the bacterial exposure that's meant to happen there, and in the way we interact with bacteria in our environment that shapes who we are.

That literally forms our humanness as we grow. And that's why we see statistics about, you know, vaginal birth versus cesarean birth. Of course there's ways to mitigate this, but in vaginal birth that bacteria transfer happens. And if we miss that window, there are things we can do to help the body acclimate.

However, like that's our initial kind of inoculation into the bacterial world. And we know even statistically, things like having a pet who are bringing in bacteria from outdoors and who have a more diverse bacterial exposure than we do can actually help reduce even the incidences of allergies.

So I feel like when we declared bacteria as bad or declared the sun as harmful, we kind of divorced ourselves from some of the really important factors that go into being human.

And I know there's also a big relationship here between gut health and the gut being the second brain, so therefore our mood and our hormones and so much more. So walk us through how ferments help create biological harmony and I would say even energetic harmony.

Hannah: Yeah, absolutely. And I would flip that. I would say the gut is the first brain when we are sort of thinking of the order of operations, you know, like many people, I, I always assume there's a pharmacy in my brain dispensing my dopamine and serotonin and, you know, that's where everything was coming from, only

to discover that in fact, it is the other way around. It's my gut that's creating the serotonin and the dopamine. Not all of it, but most of it.

And so. What I think is really important about that is instead of trying to fix a broken brain through chemicals or you know, different things like that, if we go first to healing a gut that's out of disorder, we know there's so many foods and so many nutrients that we can intake that are going to support a healthy microbiome.

And to your point, exactly. That then creates the uptake of those happy neurotransmitters that give us those mood boosts. And in fact, when people drink kombucha, one of the things they talk about is it just makes me feel good. And part of that is from the B vitamins in a living form. Part of that is from the organic acids that are detoxifying the body, reducing inflammation, reducing toxic load.

And I really think, unfortunately, we're in a state of massive inflammation. And I mean that on all levels, right? There are so many things that we're taking in and consuming through our eyes, through our ears, through, you know, what's going on in the world.

In addition to, of course, the food, the skincare products and whatnot. And all of these things are, well, they might be minute in how they're...In each individual thing. That collective aggregate amount of toxicity is really the epidemic we need to be addressing. And what's so great is it's so simple and empowering to just start making a fermented food, or even just buying one at the store.

I mean, we can go as simple as that. There really are some quality fermented foods that you can get locally, and especially if you go to your farmer's market and connect with a local producer, they also are super inexpensive and easy to make at home. I know on your side you've got a ton of recipes, uh, for those as well. And, it does feel empowering to start to say, you know what? I'm going to take back control of my health, reduce inflammation, get the nutrients I need, and in a fairly short amount of time, people really see results from making these little changes.

Katie: Yeah, I love it. And it's, I also love that there's such an easy food source 'cause they're essentially already prepared food that you can just add to literally any meal, which has kind of been my default lately. And I know there's also a skin health application here. We know that our skin is very much connected to our gut, to our liver.

Of course, everything works in harmony within the body, but I'd love to dive into the skincare specific aspects of fermentation because I feel like this side is not talked about as much and that there's likely an internal and external use of these ferments in a way that really supports the skin. So can you walk us through how fermentation makes nutrients more bioavailable?

How in in skincare it can be useful? And why does this give us such an advantage for health and beauty.

Hannah: Well, your skin is your sign to the world. You know what's going on inside is directly reflected on the outside for better or worse. I think it's, you know, when you look at different modalities, they can even tell you, oh, if you have acne showing up in specific parts of your body, that correlates to specific organs that may be congested or aren't functioning as well as they could.

So even learning how to read those different signs on your body can be so informative to understand what's going on, um, internally, not just externally. And we often, again, like the, you know, the broken brain or the headache or whatever, we want to go and apply, you know, take something and put it on topically and assume, oh, this is all just a topical issue, when in reality it is coming from within.

And so, fermentation has been used again for millennia. Cleopatra would bathe in fermented mares milk called kumus. So it does have a rich history of being applied topically as well as taken internally because again, when your systems are functioning properly and you're able to detox the, the toxins that are coming in, then they don't need to be expressed on the skin.

I think sweating also has something to do with that, right? So whether that's through movement or sauna, those things are all really important to make sure that everything is flowing as it should. We are seeing a lot of fermented ingredients in skincare that you can pay lots of money for. Of course, we also know that the scoby, which grows this bacterial cellulose, it grows it freely, and there can be extra of those, and you can apply those topically, whether that's as a mask or as a cream.

You can use kombucha in many ways as a skin toner, as a hair toner. But again, go to your fermented dairy products. There's a lot of great uses for kefir and yogurt, whether that's making masks, doing a foot bath, putting it in your bathtub with you, maybe with some rose petals or something like that.

You can create a really elevated and elegant experience for not very much money, and you get those other benefits because you're protecting the skin from damage that can be coming in, by putting those healthy microbes back where they need to be.

Katie: I love those ideas and it's worth noting. I feel like that our skin also has a microbiome, as does our mouth. I have talked a lot about the oral microbiome in light of how that can actually help us be more resilient against the bacteria that cause cavities or gingivitis. We know the oral microbiomes connected to the gut microbiome and our skin microbiome as well, and it seems like a lot of the products we use in place of some of these natural products we used to use can actually have a harmful effect on our microbiome, and I love seeing more and more women turn toward natural products using natural oils or tallow, or to your point, fermented ingredients to kind of nurture the skin microbiome.

I feel like the sunlight is also really helpful in supporting our skin microbiome and increasing nutrient absorption even within the body.

I found that statistic recently that getting the right amount of light exposure can improve our nutrient absorption by up to 500%, which is really substantial. But we know that the skin microbiome plays a huge role in our skin health and how it looks and how it feels. And of course we've talked about the gut microbiome as well.

And you mentioned a couple, but I would love to hear any ways that you personally support your skin microbiome, especially through ferment's or products that you especially use.

Hannah: Yeah, absolutely. And you know, I'm just remembering that not only is there the microbes, but there's the nutrients they create. So there's hyaluronic acid that's natural to kombucha. There's, um, the precursors to glucosamine. Uh, there's the building blocks of collagen that also exists. So like for example, when I'm using that kombucha scoby on my face, when I'm done after the 15 minutes, my face is really warm.

It might look red and you might be concerned about that, but reality is what's going on is it's pulling circulation. It's helping to release the dead skin cells and it's got those precursors for collagen and so it's really plumping up the skin. So I definitely love to do a kefir milk bath. I'll also do a kombucha bath from time to time. I like to do a kombucha clay mask. So this is just getting some clay, which we know will draw out those impurities a little rose water to make it so lovely and nice. And of course you could do rose hip oil. There's so many wonderful natural things we can add in our own to our, the products we're making ourselves where we know there aren't any preservatives.

We don't need to preserve it. We're making it right now. We're using it right now. And, um, those are some of the things I love to use. But you can also commercially find, there's a kombucha mask that's sold in a little pouch. There's fermented tea that we're seeing in a lot of different creams.

There's even bacterial cellulose that they're putting into those sheet masks that you can put on your face. So, um, I can definitely provide a list of brands if you're looking for specifics, but those are just some of the ways that we can do that. And then your feet are also really powerful for detoxification.

So let's say you can't get in a bath or you don't have a bathtub. Even doing a foot soak is a really wonderful way. It also feels so relaxing. And it's going to help be a pathway to removing any sort of built up junk in the body.

Katie: I love that. And I mean, you mentioned there are of course endless ferments and ways to ferment and I feel like I even can get in a rut of just mostly things like sauerkraut or yogurt, and kind of do those on repeat. So I would love to talk about some of the lesser known fermented ingredients that people could introduce and try that you think more people can explore.

Hannah: Yes. I think one that's super simple that a lot of people like to play with. Now you do have to be careful 'cause it can get a little explosive. Um, but that's ginger bug. So you can do ginger bug, you could do turmeric, bug, uh, both of those things. First of all, humans and ginger just have a really long, happy relationship.

I know some people don't like it, but the reality is most of us really enjoy it. It helps with digestion, it's anti-inflammatory. And this is literally just chopped up ginger, sugar and wild yeast from the air. And I think what's fun about that is the realization that these microbes are all around us. And even though they're invisible, they're still present and palpable and they exert magic. right? I like to say microbes are magic because the work that they do isn't seen by us, and yet we feel those results and they feel magical.

So that's a really easy one anyone can do. Um, we also at, at kombucha kamp, we have four cultures. So we do the milk kefir, water kefir, and then jun, which is a raw honey ferment.

So let's say you love the idea of kombucha, but you're cutting down on your sugar. Check out jun she, it's a raw honey ferment. So raw honey can be a little more expensive to source, but it has this really beautiful, delicate floral flavor that people enjoy and love. The water kefir is also going to be sweeter than a kombucha because it's a lactic acid ferment as opposed to an acetic acid, so it doesn't have that same vinegar tang, super simple. Once you have the grains, it's literally just sugar and water. That said, Water keifer can be added to any type of substrate to ferment it. So let's say you want to ferment coconut milk, you want to ferment fruit, juice, uh, you want to make your own root beer, sodas, and things like this.



Water kefir is a really easy one. Uh, to use that you can use in so many different ways. Now, milk Kefir also yields a huge variety of products. So not only can you make the milk kefir, which is like a drinkable yogurt, you can then strain that. Strain the way out of it and create like a Lana, a kefir for cheese, and that can be used in place of sour cream or um, cream cheese, things like that.

The whey can also then be fermented into its own sodas or like you're always hearing about people having whey powder. Why not make your own whey? It's still living and has all of the microbes present and throw that into your smoothies instead. So all of these fermented foods and drinks, even if you're doing the sauerkraut now you've got kraut juice shots you can do.

Be careful. Those are really delicious. I once drank too much juice and gave myself a instant mini cleanse. Um, but don't be worried if that happens. That really is the indicator of what's too much with all of these ferments is how your body's responding to it. And it's so easy to fix with fermented foods because all you do is stop consuming that amount, drink plenty of water, and then gradually add them back in.

And so by recognizing bowel tolerance and, and how your body's responding, you have a very easy feedback loop that I think is so important. I think that's what's missing is these feedback loops. Because we're so divorced from our bodies, we're not paying attention. And so while we might have, uh, for example, candida overgrowth, uh, again, candida's something we all need, but when conditions allow it to overgrow, we might then crave sugar and we think, oh, trust your gut.

I'm trusting my gut. It wants sugar. Let me give it sugar. But that's not what we mean when we say trust your gut. What we mean is, well, how is your body responding when you take that sugar in? Now you feel bloated. Now you've got brain fog. Now you're presenting with itchy symptoms. Well, that's not trust your gut.

Your body is telling you that that actually isn't good for you, and so now you need to engage in a protocol to help rebalance that so your body can function as it should. So really for us, it's closing feedback loops. That's so important.

Katie: Oh, that was such a great summary and I love that you brought up June. I had forgotten about that one and would love to get back to it because as a beekeeper I have so much love for the bees and honey being so incredible in that it, it doesn't ever go bad. It's one of the only things we know of that never decays and how there's so much, I'm a math nerd.

So much math built into the lives of bees and how they built the perfect hexagonal structures in their hives and how honey has so many health-promoting properties beyond just the carbohydrates it gives. So I love that you reminded me of that one.

Hannah: So much good stuff with honey and for your skin also, right?

Katie: Oh, absolutely. Yeah. So many beauty recipes involving honey and um, to get a little bit more into the etheric, I know that you've also described yourself as both the kombucha mama, but also the kombucha high priestess. And I know that beyond just the physiological, you have a lot of insight into the way these ferments impact us even energetically.

So I'd love to delve into how these ferments and these microbes can help us reclaim our inner sovereignty and our intuitive health as well.

Hannah: Oh my gosh, I love this question. Um, yes. So I will say I don't claim this title of high priestess lightly. I would say my actions over the last two decades since I first met Kombucha have aligned with the notion of protecting the traditional ways in which she's produced, uh, including as President of the trade association, we enshrined traditionally for many kombucha in our code of practice, along with all the other ways in which, um, you know, kombucha can be produced commercially. I then teach these practices to other people and I have a real reverence for the culture herself. In fact, we capitalize the K in kombucha, which not everybody does, I do that because I pay homage to the consciousness that kombucha is to the, example of a culture that has learned how to be in harmony.

And yes, it's diverse and it also has keystone pillar species that really maintain that beautiful balance. And so if other microbes or whatnot are able to cohabitate. They do. And if they're not, allowed in or they're in very small amounts. And I think that can be a powerful example for our own culture, how we need to have diversity as well as, you know, pillars or foundations that we all share because that's what allows us to then thrive together. Beyond that from that intuitive level, you're absolutely right. So trust your gut also has an intuitive component to it. And bacteria communicate through something called quorum sensing. And again, we don't totally know what that means. I also think our DNA communicates with us. I think we communicate with plants and nature and animals.

I think telepathy is probably one of our natural states of communication. And yet, because it's not something that's been cultivated or we've been made aware of, we haven't fully been able to use our gifts as much as we'd like.

But what I mean about this quorum sensing is we literally have a bacteria force field. Like they can do a DNA swipe of my force field. In your force field. Like say we were sitting in our chairs and they would be as unique as a fingerprint. And so I think it's so important that we cultivate this bacterial force field because it then allows us, I think, to be more in tune with those intuitions because are those intuitions, just psychic events that are happening?

Are they connected to our microbiome? There's more questions than answers when we go down a place like this, and I think, you know, every human has the ability to tap into this because we are part of, this ancient culture from which we have evolved, emerged, however you want to think of that.

Katie: I love that, and I hope we've made a pretty strong case for the benefits of fermented products and how to incorporate them in our lives more. I would love to talk in the practical realm about if someone's new to ferment, maybe they've never fermented anything, maybe they'd prefer to just source these from a farmer's market or whatever it may be.

How would you recommend starting and then really integrating these as a habit in our lives, building them into our routines. What are some kind of gentle baby steps starting points people can try?

Hannah: Oh my gosh. I love this question because this is the book I'm writing next. It's literally fermentation applied. It includes meal plans and levels so that you can start with those baby steps and then grow from there. Absolutely. The first thing I would do is go to your local farmer's market and see if there's a fermented

foods vendor, they are going to have a wealth of knowledge. They're going to have wonderful products that you can probably sample and start to get a real taste for them.

I would say just include one ferment on a daily basis, and you can rotate what that is. In fact, you know, many grocery stores sell fermented foods.

Now when you're looking at those labels, you're going to want to look for words like raw, unpasteurized, you're going to want to make sure it doesn't have, um, you know, chemical preservatives like benzoates or sorbate or things like that in it. That said, I think because of this, uh, revival that's going on in fermentation, there's actually quite a few products you can purchase commercially.

And so even if it's just putting a little kefir in your smoothie, even if it's yogurt, and again, you want to get the type that aren't sweetened, that you can then add your own berries and granola or whatnot, to. Because that's going to help reduce the amount of excess sugars coming from potentially non-sugar sources, if that makes sense. Right? Chemical sugars and whatnot.

I would say, one ferment a day. Just make sure you get one a day. From there. I would build up to one with every meal. The reality is fermented foods were oftentimes our condiments. You know, you're not intended to eat a bowl of sauerkraut. Um, it is a little bit of sauerkraut on your rubin. Why is it on the rubin? Well, it's hard to digest all that meat. And so that sauerkraut is there to support our gut health and to help us to digest it. Mustard was fermented. Ketchup was the fermented fish sauce. Um, and now it's made with ketchup.

When we start to incorporate them in these small food sized doses, what we see is that our bodies then are able to take more fermented foods. And again, it's going to tell you when you've had too many, but you're also going to start to feel more energized. You're going to sleep easier, you're going to actually be able to absorb nutrients from the food you're eating. You're going to find more regularity in your body. And just basically, once the engine starts working and you're able to absorb more nutrients also. All of the B vitamins are present in fermentation. They're not necessarily there in massive doses, but again, they're in that living form that we have evolved to instantly uptake and utilize, and that creates a lot of the energy that we're getting from our fermented foods.

Katie: I love it, and I know you have nearly endless resources on this and that you are my go-to source for all of this. So where can people find you? What products do you have available and where can we keep learning from you?

Hannah: Absolutely. So we are bacteria farmers. We sell kids and cultures at kombucha kamp. And so that's the best place to find us. But of course we're on all the social says at kombucha camp. And then our book, the big book of kombucha. 400 pages. Our readers call it the Bible. We are so humbled and grateful for that it continues to be a bestselling book. Um, so you can grab that anywhere books are sold, and maybe even your library.

And then just reach out to us online. My phone number's all over the website, so we're, we're easy to get a hold of. If you have questions, we sell, as I said, kombucha, raw Honey cousin John, Milk Keifer, and Water Keifer. Those are the four cultures we work with. we can also help you figure out how to work with many, many more.

Katie: Amazing. Well, those links will be in the show notes at [wellnessmama.com](http://wellnessmama.com) for anybody listening on the go and stay tuned for another episode, getting to go even deeper on these topics. Hannah, for this episode, thank you so much for your time and for everything that you've shared.

And thank you as always for listening and sharing your time with us today, and I hope you'll join me again on the next episode of The Wellness Mama Podcast.

If you're enjoying these interviews, would you please take two minutes to leave a rating or review on iTunes for me? Doing this helps more people to find the podcast, which means even more moms and families could benefit from the information. I really appreciate your time, and thanks as always for listening.