1085: Dying of Embarrassment: One Part of Health We Don’t Talk About As Much With Scott Hickle

Child: Welcome to my mommy’s podcast!

Katie: This episode is brought to you by Hiya Health, which I have a now extended and renewed interest in, especially with having a baby around who will be starting solid foods pretty soon. Because here's something that's kept me up at night as a parent, and I've talked about before. Our kids are the first generation growing up on not just ultra-processed foods, but foods that don't have the same nutrient content that they used to due to soil changes and so many other factors.

In fact, we're just beginning to understand the extent of this problem. And this is why Hiya exists and why I'm glad that they do, which is to give parents a real solution in a market that is flooded with kids' vitamins that are actually contributing to the ultra-processed foods. They have candy-like appeal, but not actual nutrition.

In fact, some children's vitamins on the market contain up to seven grams of sugar per serving and are stuffed with additives and petroleum-based dyes that I go to great lengths to avoid in my kids' diet. So Hiya took the opposite approach with zero sugar, zero gummy additives, just clean nutrition. And the great part is kids actually love them.

My younger kids are a huge fan. I have tried them, and the flavor is actually great, although obviously I don't take them daily. But what makes them different is how thoughtfully they are designed, formulated to meet very specific nutritional gaps that modern kids face. And they worked alongside pediatrician and nutrition specialists to make a chewable multivitamin that packs a blend of twelve organic fruits and vegetables and fills the common nutrient gaps that kids face.

They're also non-GMO, vegan, dairy-free, allergy-free, gelatin-free, nut-free. They really have thought of everything to make these ideal for kids. And they are NSF certified and receive Clean Label Project's Highest Purity Award. So when it comes to something I feel safe giving my kids, they are definitely on the list.

It's designed for kids two and up. They ship straight to your door. And I love that they send you a reusable bottle and stickers with your first order. So this helps you keep up with the refills, and they send refills every month as well. I am a big fan of these as well. And Hiya just launched something new.

If your kids are active and growing, you can add a clean protein powder with minerals designed just for kids to be exactly what they need. Their new Kids Daily Growth Plus Protein is a game-changer. It's more than a protein shake. It's a purity awarded clean protein powder with added minerals and healthy fats that can mix right into water or smoothies and support muscle development and cognition and fuel everything else they've got going on.

So, we worked out a special deal with Hiya. You can receive 50% off your first order on any of their products. To claim this deal, you must go to hiyahealth.com/wellnessmama. This deal is not available on their regular website. So again, that's H-I-Y-A-H-E-A-L-T-H.com/wellnessmama, and get your kids the full body support they deserve.

This podcast is brought to you by Just Thrive. And you guys know I don't share products that I don't personally believe in and take, and Just Thrive Probiotic is one of my absolute go-to. I've been taking it consistently for years, and I have noticed a huge difference in digestion, energy, and really how I feel day to day.

It wasn't an overnight dramatic change, but it's one I notice when I don't have. And I really respect this company and the products they make and their values, so when I had a chance to negotiate something special for you guys, I jumped at the chance. And here is the very special offer that I was able to lock in that's not available anywhere else, which is if you buy a ninety-day supply of Just Thrive Probiotic, you get three full months of their digestive bitters completely free, and these are awesome.

I use them occasionally with meals. They help digestion. I notice a difference in my digestion with them. And this is a ninety-dollar value added at no cost just for being a Wellness Mama listener. It's a tremendously good deal. You save a lot, and here's why I love this pair. The probiotic works by surviving the journey to your gut.

Most probiotics don't. They die before they get there. But their spore based formula is clinically proven to arrive a hundred percent alive, so it can actually do something, and the digestive bitters are the perfect complement. I take them before meals to help my body break down food more efficiently, and I notice that I don't have that sluggish feeling post meals, and they help your body's enzyme production.

So together, they cover the full picture of gut health, and ninety days is the sweet spot where a lot of people really say they start to see the difference really tangibly. So that's why I am encouraging you to try this for the full ninety days and made this offer where you are able to get both for ninety days.

Give it the time it needs. They back every order with their money back guarantee. There's genuinely no risk. And you can use this link to get this personalized deal that's not available on their main website, which is get.justthrivehealth.com/pages/wellnessmama. I know that's long. This will be linked in the show notes as well.

Katie: Scott, welcome. Thank you so much for being here. I'm excited for this topic.

Scott: Katie, thank you so much for having me.

Katie: Well, I love this because while I have touched on gut health, for instance, many times in various ways on this podcast, I have never gone deep on what we're gonna talk about today. And even in researching for this episode, I really fell in love with your work and the way that you approach it.

And I feel like you bring a lot of light to an area that you say, like, we're often dying of embarrassment around. And so that's kind of where I would love to jump in, especially... And maybe this is an American thing, maybe this is an all-over thing, I don't know. But it seems like in the US we're like, we monitor everything these days.

I know, like, I have wearables. I know my heart rate, my HRV, my oxygen sat, my... I even know my, like, mineral balance of my sweat at different times, or I've tested all these random things. And yet there is a really informative seemingly piece of information that you know a lot about that a lot of us seemingly know nothing about.

So I would love f- to kind of use that as a jumping-in point to talk about kind of our bowel and urinary data that we're missing, and how this relates to, as you say, people dying of embarrassment, like colorectal cancer being such a big killer that I feel like doesn't get talked about. And the reason I bring that up specifically is I have a couple of people very close to me in my life that have gotten and even died of colorectal cancer.

So I'd love that we get to bring some awareness to this topic. And I have a feeling like it truly actually could save lives. So I know that's a big, huge, broad intro, but I would love to, like, hand that big softball to you and let you run with it.

Scott: Amazing, Katie. Thank you. So I'm Scott Hickle, co-founder and CEO of Throne Science, and we're building, exactly to your point, a device that tracks gut health and hydration and urinary function.

And one day we want to be a early smoke detector for signs of colon cancer and bladder cancer and kidney cancer by looking for basically microscopic blood in the toilet. And so in taking a step back, my path into this started because both my parents are physicians. My mom is a geriatrician and my dad's a, a medical device inventor as well.

And so back in 2023, I called my mom and asked her, you know, "Is there any medical utility to people's waste?" And she was like, "Honey, I stopped giving my phone number to my patients years ago because they send me so many pictures of poop." And that was the first time that I was like, "Okay, wait a second, there might be actually something to this," and started looking into it.

And to your point, I was like blown away that we have 15 devices to track sleep and cardio and metabolic health and respiratory health, but nothing that tracks your gut health or

urinary function or hydration, despite the fact that like there is a wealth, there's a total... like just a goldmine of health information that we flush away every day, and everyone goes to the toilet multiple times a day.

And I think everyone appreciates that gut health is like a pillar of your overall health and wellness, and despite that, it's a total black box. And so we built this device that tracks gut health, hydration, bathroom habits, and urinary function hands-free automatically every time you go to the bathroom.

So the way it works is it's literally a camera facing down into the toilet bowl. Clip it onto the toilet just like that, and then it's totally hands-free from there. So it has a little proximity sensor on the top, so it identifies you when you're sitting on or s- you know, wa- standing at the toilet, and then it uses your phone's Bluetooth to know this is Scott versus this is Katie versus another member of my household.

And, you know, if you have guests over, it stays off because their Bluetooth isn't connected to the device, so it respects people's privacy. And then when you leave, it turns itself off, and you get a little report card with how hydrated you are, what your gut health looks like, all your trends. And ultimately, one of the features that we're actually launching this week that I'm very excited about is what we call a gut health coach that helps you connect the dots between your diet and your lifestyle and what's showing up in your gut health, because gut health is so responsive to changes in diet and lifestyle.

For me, it's stress. I know when I'm stressed, it just kills my gut health. Other people, it can be dietary triggers and sensitivities. And then ultimately, the next version of the device that we're working on is able to identify, currently in our lab, microscopic quantities of blood that are, you know, early warning signs of more serious diseases. Sometimes cancer, but generally if there's blood in your, you know, gut, that's not a good thing.

And so yeah, to your point, you know, it's... this is one of those things that I think has been underappreciated, particularly in the West. You know, we have this Victorian prim and proper attitude. We don't talk about our privates, but in other parts of the world, gut health is just much more of a candid conversation. We're trying to bring, you know, some lightness to the dark.

Katie: This is such a fascinating concept to me because like, like you said, we have wearables for literally everything except for this, and I feel like this is a kind of a tougher area and the way you've solved it in a way that to me seems very novel.

Because previous to this, I've been aware there's certain gut tests you can do and, and stool tests, which admittedly I've done a few over the years. They're not super fun. I feel like

high barrier of entry 'cause convincing someone to do this is not an easy thing, and it's not an easy thing to actually do.

Then you're waiting for a couple weeks, plus this is, in my mind, that's just like a snapshot, which I also feel that way about most labs. It's like it's just a snapshot of that moment. Whereas our blood markers and our gut health, to your point, are probably constantly evolving, very personalized, and very unique to us.

And so it seems like in the health world, like we know gut health is important. Certainly everybody's heard that, and we probably do a lot of things in the name of gut health without really knowing if they're positively or negatively affecting us. And so it seems like this maybe is gonna help us have that data to know.

But I would guess also it's like very motivating because as an example, when I started wearing an Oura Ring, I started noticing, oh, certain things really don't help my sleep, like eating after sunset or drinking alcohol ever, or whatever it may be, and slowly those things completely changed. Or things really do help, like seeing the sunrise and going for a walk, and those things became habits.

So I feel like this is gonna open up a whole new world of motivation for people when we can understand how things impact us, to your point. But I'd love to maybe like talk about some of the risk factors and/or things that, based on what you guys are able to see now, you find actually are beneficial, whether it's probiotics, whether it's fiber.

Like, what are these things that we hear about? Which ones are actually maybe beneficial and needle movers?

Scott: Yeah. It's a great question. And so I wanna take a step back. I think generally my- our position on this is like all the literature for each of these different, you know, factors and interventions that you're hinting at do work for some people some of the time.

And, you know, to your point, you know, some people with Oura Rings find that alcohol really harms their sleep, but, like, not all people. You know, there, there are some people who the impact is far less pronounced, and a lot of times that comes down to genetics. Sa- gut health is the exact same way, where, you know, basically all the literature shows is a normal distribution, and we all fall on a normal distribution.

And so if the literature says for, on average, we need to sleep eight hours a day, but some people get away with five or six hours a day, like, we all wanna think we're that group, but, like, you know, most of us probably aren't, but some people actually are. And if you have the data for yourself personally, then you can pretty easily see, okay, if I actually do get five hours of sleep, how does that impact my HRV?

And same thing with gut health. No- nothing existed prior to us that gave you the tools to see, how does my personal gut health respond to this new supplement, this new diet I'm trying, this new medication? And so that's... I, I think our position is we don't want to be in the position of making general recommendations because it really comes down to helping you tailor your lifestyle and your stack for what works for your body partic- in particular.

So one of the things I've learned for myself is stress is the number one driver of my own gut health, and you can see it in all my charts. When I go home for the holidays, it's like two weeks of perfect gut health, right? I'm offline. I'm hanging with my family, you know, lots of oxytocin. And then as soon as I get back to the office, it throws my gut off-kilter.

And, like, that is a very pronounced effect for me in the way that's unique amongst my colleagues, I'll say. And similarly, like, w- another great example we've had recently, speaking to motivation, is one of my friends got a Throne and said, you know, he had like a gut health score in the 50s. And our gut health score is a composite score similar to like a recovery score for, you know, your HRV and your sleep.

We take into account your stool frequency, so how often you're going, and then your consistency on the Bristol Stool Scale, so like hard, healthy, loose, liquid, but like all seven different categories. And he was like, "Look, after f- the first week, my gut health score was like mid-50s, and that really, you know, was eye- eye opening to me.

I didn't think that it was abnormal. And I started eating healthier as a consequence of that, and within a month, my gut health score was up into the 90s." And I, I think so much of what we do comes down to the f- you know, just awareness, right? Like, you don't measure, then you're not managing it well. But if you measure things, then you can measure yourself to outcomes that work for you.

Katie: I love that. And the, like, former... Those who of us, like me, who loved being in school and loved... I loved tests, I loved grades, I loved all of it. I love that there's gonna be a score attached to this, personally. And I guess there's a lot that goes into this algorithm, but what are some of the factors that people can pay attention to that, like, for instance, when they start getting a score that can help them positively improve it?

I know you guys explain that in a personalized way. I'm just curious on, like, kind of a large scale, like, what are the categories even that we do know based on data contribute to gut health that maybe people don't often get right?

Scott: Yeah. So we basically look at stool morphology and timing. So the big things are the color, volume, consistency, or the form of your stool, which is, like, a seven-point scale called the Bristol Stool Scale that our AI can identify as accurately as gastroenterologists.

We look at buoyancy, so, like, sinking or floating, which can tell you about fat content. And then we also look at a handful of other categories. So, like, f- in your urine, we l- look at color and cloudiness. And we also look at the timing. So your time to first evacuation from the time you sit down to the time you have your first bowel movement tells you a lot about urgency or constipation.

And then the next big one is your total time on the toilet is highly correlated to hemorrhoid risk. And so we send you a push notification after 10 minutes and say, "Hey, might wanna stop doom scrolling." It's a little bit nicer than that, but ultimately, the, the biggest things are those color, volume, buoyancy, and we coach you along all of those things and say, "Hey, you know, th- these are optimal, suboptimal."

And, and really the thing that we're most excited about is this gut health coach where we can see when you have an episode of bad gut health, right? You have a loose or liquid bowel movement or maybe you're constipated. Then we can ask you, you know, "What did your diet look like in the last day or so?

What is... You know, were there any stressors in your life?" Basically have a conversation with you the same way that someone on your care team might. And then over time, we start to correlate those tags that we extract from that conversation so that we can show you, okay, it looks like when you have coffee on an empty stomach or when you're traveling, it has a constipative effect on your gut health or, you know, makes you have...swing looser.

And so that's the kind of thing that is I, I'm just so excited about because everyone's body is unique to them and, like, I know for a fact, like, I don't respond the same way my girlfriend does to coffee. And for... Like, you know, we have a friend who has, like, terrible gut health because of tomatoes, and it took him a decade to figure that out.

Like, anything with tomatoes in it seems to be the trigger. And our whole goal is, like, so many people's gut health journeys last years longer than they need to just because they're not keeping super diligent records on every bathroom trip, every time they go to eat, and we're just trying to compress that timeline to get you, like, clarity around what is actually helping my gut and what's hurting it.

Katie: That's so fascinating, and it is so personalized that I would guess that, like, is a huge needle mover because trends don't matter when you have a specific thing you're trying to figure out. And it seems like you're able to, like, unite the data with the personalization for that person to actually figure out what is affecting them in real time, which is so exciting to me.

And I would guess most people listening know, like, gut health is important. Gut health affects the whole body. I've had those conversations on here before. But I feel like in

researching for this, the areas where I feel like it's not talked about enough that you explain so well is, like, there's this hidden epidemic, especially in young people, related to gut health secondarily with, like, these kind of staggering and scary rates of cancer.

But also, like, you made some great points in what I was reading for researching this of the gut problems that extend beyond cancer. 'Cause obviously cancer's kind of one of those worst case scenarios.

Scott: Mm-hmm.

Katie: But there's a lot going on in the gut that's, like, maybe not cancer level b- bad, but, like, a warning sign that we're missing.

Scott: Yeah.

Katie: So can you maybe walk us through some of the data related to, like, what the rates of, the crazy rates in my mind that we're seeing of cancer in young people related to gut health and the colorectal cancer. And then also the other secondary things we're missing?

Scott: Absolutely. So the, everyone talks about the mental health crisis or the metabolic health crisis, and we're also just generally a nation in gut health crisis.

There's a lot of health crises that we are going through. And when people talk about, for example, the mental health crisis or specifically the metabolic health crisis, diet is always one of the factors that people point to. And, like, obviously that has an impact on our guts, right? Like, we are the first generation to eat 70% of our calories from ultra-processed foods.

Like, of course that's gonna have an impact that hasn't been studied before because we're the first generation. And so taking a step back, some of the numbers that I think were so staggering to me, you know, three years ago when I set out on this journey is s- there are 60 million Americans with a chronic digestive disease. So like IBS, inflammatory bowel diseases like Crohn's and ulcerative colitis.

There's 50 million Americans with a, diagnosed urinary tract condition. And 52% of Americans think it's totally normal to have, like, painful abdominal symptoms on a weekly basis. 62% of Americans have been surveyed said they'd experienced GI symptoms in the previous week, right? Like, more than half of people on a weekly basis have some GI symptoms.

And the craziest one, cancer, is you have roughly a 10% lifetime risk of being diagnosed with a cancer of the lower GI tract or the urinary tract. And the biggest, scariest, the one

that you hear about in the news all the time is colorectal cancer, and colorectal cancer is now the deadliest cancer in Americans under 50.

And that, that is new, by the way. Like, that, that stat is new as of this January, so like six months ago. For most of our lifetimes and our parents' lifetimes, colorectal cancer was thought of, like, as an old person's disease. And now something approaching 15% of colorectal cancer cases are in patients under 45 who aren't eligible for screening colonoscopies.

And the crazy thing about colon cancer, it's the only cancer in the country whose incidence is rising. Every other cancer is on the decline. Colon cancer is the only one that's climbing right now. And the... I think the, the, the, you know, the really just pernicious shape of this disease is that it is one of the most curable, solvable cancers in the world if you catch it early.

And so on average, you know, it takes seven to 10 years for a pre-cancerous polyp, like a little wart on the inside of your colon, to be actually becoming malignant tumor. And so you have, like, a crazy long window of time to detect and intervene and find that thing with a colonoscopy and, like, take it out, and you've literally stopped cancer in its tracks before it even became cancer.

And despite that, one in three people diagnosed with colon cancer die of colon cancer, and it's 100% because we catch it too late. And so our ultimate mission for this company is to not only improve health but save lives with every flush of the toilet because we'll be looking, you know, in the future, a few years from now, at microscopic blood in the toilet that is called fecal occult blood or microhematuria if it's in urine.

And it often shows up there because those little polyps, stool brushes past them and scrapes them a little bit, and they leave traces of blood in the stool. And our, you know... The thing that so motivated us is if we can get people aware of microscopic blood in their stool before it becomes a cancer, we can get people in to have colonoscopies and take those polyps out before it stops.

And, like, even if you catch it at stage one cancer, you have a 91% chance of still being alive five years later. But by the time it makes its way to stage four, you have a 16% chance of still being alive five years later. So there's like... early detection makes 100% of the difference.

Katie: I did not realize until this, researching for this that those rates were so high. And also it seems like that's a really big delta between early detection and not. Like, I would guess some other cancers that's, there's not as big of a gap there, but that seems like a really big gap, with the early detection in something that we, like, to your point, don't really screen for early.

We kind of wait, and even then it's like the screening maybe isn't, like, as widely done as it could be. And also to your... Like, I would guess also, like, colonoscopy is kind of maybe not a most comfortable day of your life kind of thing. But if you have data that's not as much data as a colonoscopy, but, like, microdata every day that could tell you if that's maybe warranted and worth doing, you're gonna have more people who are willing to do it than people who are just waiting till they have a symptom or till they are old enough to warrant it.

Scott: 100%. The, the way I think about it is, like, you know, you're- when you're driving your car, your car has a dashboard, and some of those things you look at every time you're in the car, right? Like your speedometer, your fuel gauge. Like, you check those every time you sit down. But then there's things like your check engine light or your air tire pressure sensors that you don't check every single time, and they only come up when it's relevant.

And for so many people, like, if you, if you're blessed with good gut health, then you probably don't need to be measuring your gut health for gut health's sake every day. But if you had a device that could tell you, hey, there, you might have an early sign of cancer that you have a 5% chance of getting in your lifetime, 1 in 20 people will get colon cancer at some point in their lifetimes, 1 in 25 to 1 in 20.

That is, like, so obviously important and valuable. And the, the crazy thing about it too is, like, colorect- colorectal cancer is effectively random. Only 20% of people with colon cancer have a family history of colon cancer. And so, you know, 80% of us without a family history of colon cancer are still at risk of colon cancer.

And so that's not quite the right way of saying it, but you get the idea. A- and, you know, this is near and dear to my heart because to your point about dying of embarrassment, like, I just learned this six weeks ago. It's crazy to me. I've been building this company for three years. I've- we've been very public about our mission.

We want to build the smoke detector for colon cancer. My mom is a doctor. She's the first one who told me about this whole concept, and I only learned from her six weeks ago that both of my maternal grandparents had colon cancer. And I'm like, "Mom, like, that, first of all, like, this is my livelihood. This is the thing I'm, I, I'm so passionate about.

How am I just now learning this? Also, that is, like, medically relevant information from my personal health history.

Katie: Wow. Well, and I, I would guess, like, with seeing this on the rise, and I know you can't probably, like, speculate entirely as to causes, but I'm curious if there are factors that we do know may contribute or at least are worth, like, looking at when it comes to this rise in colorectal cancer. Like, because of even just the fact that it's colorectal cancer, I would logically guess there could be a dietary connection here, for instance.

And you mentioned the rise in ultra-processed food. I'm sure we can't pinpoint a specific cause, but, like, a trend perhaps, or lifestyle factors that come into play. Like, I'm curious of, like, on average, are there anything we know about that are within someone's ability to effect change that could be a factor that...

And I know that, like, you're gonna give more personalized information with Throne.

Scott: Yeah.

Katie: But, like, are there categories that we know can be either helpful or harmful?

Scott: It's a great question, and it's an area of, like, a ton of research right now. So, so some of the interesting history about colon cancer research in the United States is that historically it's almost all been funded by the DOD.

Like, every other major cancer killer is funded by larger research institutions and federal grants, right? Like breast cancer and ovarian cancer. Colon cancer is funded by the DOD because coming out of the Korean War and Vietnam War, a lot of veterans came down, like, you know, decades later, those war veteran populations had higher incidences of colon cancer than the baseline American population.

And so something about their time being deployed abroad was associated with an elevated risk of colon cancer decades later in life. And there are two leading theories. One is the diet. You know? So many of their meals were these, like, MREs, or meals ready to eat, which are, you know, some of the first ultra-processed foods and, and they were kind of some of the first populations or cohorts to eat almost exclusively ultra-processed foods for extended periods of their ti- of their lives while they're on deployment.

And then the other one is chemicals that they were exposed to. And obviously there's a lot of chemicals involved in war, you know, explosives and napalm. And so right now, the, the two leading theories for colorectal cancer are ultra-processed foods, and then the chemicals on our produce, so like, you know, Roundup and glyphosate, that kind of stuff.

And so in general, you know, what can you do to reduce your... And, and then the other one is nitrates. And so, I will say I'm not a researcher. I do follow the space closely. I think in general, you know, eating whole foods is kind of the, the basic health advice, right? Like, stay away from packaged foods, eat whole foods, wash your foods, try and get, you know, as much of your food at home as you possibly can.

Go to grocery stores, eat out less, and, and ultimately it, you know, reduces risk in every corner of your life, not just colorectal cancer.

Katie: Yeah, and I'm curious specifically to double-click on a couple factors I know you've talked about and that I've heard about, but in specifically their relation to gut health and risk here. Which are, fiber consumption and hydration, because I've talked about those most from, like, a hormone perspective, for instance.

And how for women those are often helpful factors in perimenopause or in pregnancy or in various hormonally driven phases of life. But it seems like those are also big factors potentially in long-term gut health and risk factors related to... So I'd love to talk about if there's any data related to fiber consumption and what we know about that and/or hydration and what we know about that.

Scott: As it pertains to colon cancer?

Katie: Colon cancer or gut health in general.

Scott: Okay.

Katie: 'Cause obviously fiber for gut health is one that we talk about a lot.

Scott: Yes. Okay, great. So c- I, I, I'm not sure about any literature specific to colon cancer and fiber or hydration, but as it pertains to gut health, absolutely, there's a wealth of literature out there.

And so when it comes to fiber hei- fiber consumption, you know, there's two types of fiber, soluble and insoluble fibers. And which type of fiber you should be eating is actually kind of described to you by your poop. And so taking a step back, the Bristol Stool Scale is the kind of universal tool that clinicians use to classify poop.

So, you know, Bristols one and two are constipated, three and four are healthy, five is loose, and then six and seven are liquid. And if you have constipated bowel movements, then you want to be eating soluble fibers that help... Be- because con- and constipated bowel movements are associated with a lower transit time, right?

So it's taking longer for the food to process in your gut, which is why your body pulls more hydration out of the stool, and that's what causes it to be, you know, firmer and harder to pass. And so you wanna eat soluble fibers, which help it pass more readily, whereas if you are on the looser liquid end of the spectrum, you wanna be me- eating more insoluble fibers that help add bulk to your stool or mass, and that, you know, helps it pass, you know, faster without...

Or, or I guess helps it slow down, and so more of the liquid can get pulled out of it in the colon. So we-- everyone hears the, you know, universal advice, eat more fiber, but that is not necessarily the full story. And, you know, the, the thing I think that is underappreciated

is that the two different types of fibers have a, you know, different, like, very different impacts, and which one you should bias towards- Is already being described to you by your body if you're paying attention, and, and know to pay attention and make those associations.

So I think that's the big one, and then obviously hydration is a huge one. And the universal advice is drink more water. And one of the things that I think is so ex- like, unbelievably exciting to me about Throne is that 68% of our users see improved hydration habits. So, like, their h- average hydration score throughout the day is higher after two weeks of using the product because you're so much more aware of your hydration status.

And so taking a step back, your dehydration shows up in your urine before you even feel thirsty. And so if you go pee, most people aren't paying attention to the color, and it's a very different experience to get a push notification, you know, 60 seconds later that says, "Hey, your hydration score is, like, 32%."

And immediately your thought is, "I should drink more water." And to be able to drive that behavior change, that is so something... That is something that is so obviously healthy and beneficial and, you know, improves kidney health, improves gut health, improves, you know, skin health. It, like, it is universally a good thing to be well-hydrated, and to be able to drive that with these, you know, context-specific, like, at exactly the right time notifications is, like, simple and so obvious in hindsight, but, like, amazing to see how well it works in practice

Katie: That's really cool. And I would guess there's gonna be, like, overlap there too. Like, I know I feel different when I do, like, hydration plus hydrating foods, so like more fruits and vegetables and things that have a high water content, which also then have the fiber benefit. So I guess people will get to see this data and, like, really see what's moving the needle. Which just like I said, like, with Oura and sleep, I started making changes just 'cause I wanted to get a good score.

And so this is cool because it opens up a whole new, I feel like, realm, and people aren't getting that data. So you guys are really, like, innovative in that perspective. I'm curious, I wanna make sure we touch on how much effort is required to start using Throne and adopt it. Like, is, is it low effort once it's set up kind of situation?

And/or, like, once people adopt this, like, what changes do you guys most often see people make, and how long do those changes take once they are getting this data?

Scott: Yeah, great question. So the user experience is designed to be totally effortless. So it literally installs that fast. It takes two seconds to clip the device onto your toilet.

You have to pair it to your Bluetooth and connect it to your Wi-Fi, so that takes five minutes once you're, you know, creating an account, same as you would with any other app. And then from that point forward, it is completely hands-free. So it uses this motion sensor. You go to the bathroom, it turns itself on.

You leave, it turns itself off. And you don't have to think about it. Like, it's just there. If guests use your toilet, it stays off. Like, it's on when it's supposed to be. It's off when it's supposed to be. It, like, it requires zero effort or thought. It's completely frictionless, effortless. And we spent literally two years designing and developing that system to make it so that it would not require any more thought, and you just get the push notification telling you, "Here's how you're doing."

And then, you know, some of the other questions people ask are, you know, "How often do I have to charge it?" So we advertise a 30-day battery life. In practice, it's closer to, like, we see about 56 days on average between charges. So very long battery life, right? Like, that's basically charging it six times a year.

And we ship it with a 13-foot long charging cord, so you, like, most people don't even have to take it off the toilet to charge it. They can just plug it straight in on the toilet, charge it one night, you know, every month or two, and that's it. And then the last question people get is like, "Well, what about cleaning it?"

And, like, the only piece that goes in the toilet is, like, you know, the size of my thumb here, this tiny little thing, and you literally just take a wet wipe and wipe it off if you see that you need to, and we'll tell you in the app if you ever need to clean it. But it's very easy and, like, not gross. We designed it to be as, you know, friendly to the ick factor as we po- as we possibly can.

'Cause to your point about stool tests, right? Like, people hate stool tests. And a couple stats there, if I may. Aetna, one of the big insurance companies, sends out a million prophylactics, so, like, you know, preventative stool tests a year for colon cancer, these fecal immunochemical tests. And their return rate, I've heard through the gra- grapevine, is something like 3% to 6%.

So they send out a million stool tests, and, like, 50,000 people send them back. And our whole thing is like we wanted to design this to be something that people would actually use because a stool test is useless if people won't send it back, and most people don't wanna reach their hand in the toilet and scrape their stool and send it off to a lab.

That's, you know, I, I think a lot of your friends and my friends will do it, but for the average person, that's... it's a bridge too far.

Katie: Yeah. It's a big ask, for sure. And, the other question, you touched on this a little bit, but just to reiterate, like when I first heard of this concept, I was like, "I don't know if I want a camera in the toilet when I'm going to the bathroom," but it points down, like the privacy side.I just wanna touch on that side-

Scott: Yes

Katie: ... 'cause I would guess that also comes up for people.

That's exactly right. It's, it's a camera pointing down, and that was kind of one of the first things that we had to like prove to ourselves that this was not a totally crazy idea. And so we went and interviewed strangers outside of Trader Joe's just down the street, and we'd ask them like, "Hey, if you could track your gut health and hydration, would you be interested in that?"

And everybody would be like, "Oh, yes, of course." We'd ask, you know, "What would you use it for? And do you use other health trackers? And what's your diet look like?" And we would ask them, "Okay. Now, if you could track your gut health and hydration, and it was a camera in your toilet, but it's pointing down into the toilet bowl, so it's not looking at your body.

It never will. Can't see anything. How do you feel about that?" And every single person we interviewed was like, "Yeah, I don't care. I- i- if it's pointing down, you know, it's not special." And so what we found is there, there is a... when you say camera in your toilet, people naturally assume pointing up. And when they realize it's pointing down into the toilet bowl, it is way easier.

And then obviously everything's encrypted, and, you know, you have your account, and, you know, only my data goes to my account. Like, I have, you know, my partner at home, and I can't see her data. So it's r- really it's as, you know, privacy aware and, you know, we, we treat privacy as seriously as like a, Oura Ring would or an Apple Watch.

Katie: And then another area just to, like, go a little deeper on that we touched on, but I wanna make sure we really highlight, 'cause this tracks both your stool and urinary factors. And I know there's some data around urinary factors and especially prostate health for men. Even though a lot of people listening are women, a lot of people are married to men, and it seems like a staggering amount of men as they get older will experience some form of prostate issues and not actually know until they're pretty kind of in an advanced stage of that. But what are the numbers like on that? And h- what are things people can know earlier related to urinary health and prostate health?

Scott: Katie, you've done amazing homework. Thank you for setting me up here. So yeah, so we also measure hydration from your urine, and that is for everyone. And then we also, for men, we can measure your urinary flow rate, and that's from the sound of it.

So when you pee as a man standing up straight into the water basin, it's loud, and we can actually turn that sound signature into a urinary flow rate chart. And then the, the peak urinary flow rate is, like, the best proxy to prostate function and prostate health. And so the stats on that are roughly 50% of men by age 50 and 80% of men by age 70 will have an enlarged prostate that can make it more difficult to pee.

Because, you know, just context, the prostate, right, is this little donut at the bottom of a man's bladder, and the urethra, the pee tube, goes straight through that donut. And so as the prostate gets bigger, it can squeeze that tube tighter and tighter, which makes it harder and harder to pee, and that's stereotypically why Grandpa has to wake up in the middle of the night to go to the bathroom.

And as it were, my maternal grandfather, actually had to have... You know, this is the worst-case scenario, but he had to have a permanent catheter installed earlier this year because he ignored the signs of this until it was too late. And so what, what can... You know, the worst-case scenario is that you ignore the signs, and then what happens is you create this back pressure on your bladder 'cause you're never fully emptying it.

And so your bladder just kinda like y- it's a balloon, right? And so think about, like, you take a party balloon and you blow it up really big. It never goes back to that same, you know, fresh, small, tiny balloon. And you leave it there for a long time, then it can just get stuck as, like, you know, this big balloon.

And your bladder works the exact same way. And so if you don't, you know, ad- take care of this and address it... And again, going back to the point about embarrassment, so many men don't talk about these things. Even though they're in discomfort, they would rather just sit in discomfort than have a candid conversation with their loved one or, you know, doctor.

Then ultimately what'll end up happening is your bladder never can compress back down to its normal size. It, it loses its elasticity, and then you have to get a surgery. They either put in a stent or scoop out part of your prostate, or they put in a permanent catheter. And so just taking a step back, like, again, I am just such a big believer in, like, awareness is key and, like, we should have way more candid conversations about everything having to do with our private parts because they're so central to our overall health.

Katie: And to touch on the practical side a little bit, like you explained how this works, but when somebody sets it up, like for instance, I have a lot of people in my household, can

multiple people use the same device and just have separate accounts and it, like, knows how to handle all that?

Scott: Yes, that's exactly right.

So we can support up to six people in a household for one device, and then we can do two, two of those users get their own button. So you don't even have to bring your phone with you to the bathroom. There's like player one, player two. You just push your button. And so, like, that's great for going to the bathroom in the middle of the night when you might leave your phone charging or, like, first thing when you wake up.

And then for everyone else, you just have to bring your phone with you to the bathroom. And ultimately, you know, eventually we'll take that restriction off, but it is just eas- it was easier for us to build it so we're capping it at six. I know in your family that might be tough, but I, I assume not everyone, in your family has phones yet.

Katie: It's true. The younger ones don't have phones. That's a good, easy, easy one to navigate that way. And I will of course put links 'cause many people listen on the go, so those will all be in the show notes both to find you and to find where to get Throne. But the last two things, is there anything that you wish I had asked you that I did not, that you feel like is important and relevant?

And then secondarily, where can people find you and find Throne? And like I said, those links will be in the show notes as well.

Scott: Amazing. So we're just at thronescience.com. All of our social handles are just @thronescience. I'm Scott Hickle. It's like pickle, but spelled with an H. And again, I'm, I'm most active on Twitter and LinkedIn and Instagram.

And as for questions, no, you... Like I said earlier, you did an amazing job with your homework and I'm just honored to have been here and to be part of this conversation. Thank you.

Katie: Well, thank you. You're, like, so well-spoken on this topic. Have-- I g- I learned a lot for sure, and I feel like we shed some light in a hopefully very inspiring way on a topic that doesn't ever get really talked about in this way before.

And I feel like you shared not only the staggering data and also things that are within our control that can help hopefully start changing those metrics. And many of the people listening, I feel like are parents in that younger age group that are seemingly disproportionately affected by some of these rising rates.

So I love that we got to bring awareness to that. And this is such a fascinating, interesting concept that I'm personally excited to try, so you guys can stay tuned. I can report my own data on social media as I learn as we go from this. like I said, it is a thing I don't talk about publicly. In fact, I have had people I lived with who never knew that I went to the bathroom.

So, like, I get the whole dying of embarrassment thing. so this will be a fun experiment. But all that to say, Scott, I'm so grateful for your time. This was such a fun conversation, and I have a feeling it'll be a fun experiment for me and for a lot of people listening, so thank you.

Scott: Thank you so much.

Katie: And thank you as always for sharing your most valuable resources, your time, your energy, and your attention with us today for this fun conversation, and I hope you will join me again on the next episode of the Wellness Mama podcast.