



The Relationship Between Gut Health & Viral Illnesses | Dr. Robynne Chutkan

[00:00:00] Guest Intro – Dr. Robynne Chutkan

Darin: Hey everybody. Welcome to show this is Darin Olien This is the Darin Olien Show. What's happening? How are you? You ready for some microbiome education, This is so important, so epic. You can make some changes that can have some huge benefits towards your health. My next guest, Robynne Chutkan, is one of the most recognizable gastroenterologists working in America today, and it was such a pleasure to talk with her, meet with her, and discuss these incredible topics. She has a bachelor of science. She became a doctor at Columbia. She then founded the Digestive Center for Wellness. It's an educational platform and the goal is so that you can have access to reliable, actionable, and scientifically valid gut health information because of course everyone has an opinion. Sometimes with those people they don't have the credibility that someone like Dr. Robynne has and she certainly does. She wrote an incredible book called *The Antiviral Gut*, yep. *Tackling from the Inside out*, what an appropriate title. Some of the things we covered, Terrain theory, the environment of pathogens, what we can do with our terrain, how we can make adjustments based on our habits, based on what we are eating, based on our environment. We talk about forest bathing, how nature has such powerful remedies. If we actually set foot in nature, some real studies that back it up. We talk about how the microbiome is influenced by certain foods being exposed to antibiotics the more and more problems that come by way of this overuse. Some of the things she said about aging, the brain and overuse of antibiotics blew me away and scary. She also has a very important point in her book on 10 questions to ask your doctor; talk about gut diseases related to Parkinson's, Alzheimer's heart disease. It's crazy how acid blockers are messing up your immune system.

Darin: So important on the viral load in terms of keeping our acid appropriately balanced in our digestive process. We talk about the pros and cons, how much to use antibiotics and what we can do to rectify this situation. This is real, practical, powerful information directly from this badass Dr. Robynne Chutkan. So sit back, relax. This is an enjoyable conversation about your gut and how powerful it can be if you take the right steps. Enjoy the episode.

[00:03:08] Podcast Intro

Darin: You are listening to The Darin Olien Show. I am Darin, and it is my life's mission to find and share healthy and sustainable ways of living. In this podcast, I talk to inspiring people and professionals from around the world to uncover ways that we, as humans can improve our lifestyles, strengthen our mindsets and take better care of this beautiful planet we call home. If you are looking for motivation to take the next steps towards a happier, healthier life then you are in the right place. And I am stoked that you are here. So, let's do this. This is my show, The Darin Olien Show.



[00:03:50] Interview Commences

Darin: I am really excited to meet you and to dive into this really, really important topic and I am excited now that your book's out the antiviral gut tackling pathogens from the inside out. There it is. So congratulations on getting a book done. I am in a year of trying to finish one of mine called Fatal Conveniences and it's, you know, those last little couple months. It's like, it's pretty intense and being a doctor that you are and all of the connections between the research and the biome research and it's constantly evolving. I can't possibly imagine when you actually had to bookend, your book and say, hey, I got to stop now and complete it even though the things keep, keep happening, right?

[00:04:45] The challenges of writing a book about gut health

Robynne: You're so right Darin and this is a thing, this is what was so different about this one and why it was harder than the other three combined is that the other three are primarily digestive health, right? And I can recite that in my sleep. I've been a gastroenterologist for more than 25 years. But this, I would read seven scientific articles in the morning and I would go to bed and the next day there are like nine new ones and three of them were refuting what four of the other ones said. I told my daughter who's a senior in high school one day, I said, it's like writing a research paper every day. And of course she very unsympathetically said to me, Welcome to my world. She was a junior in high school at the time, but you can actually distill that exactly right spot on. And there is a point where, you just have to say, okay, a lot of this stuff isn't new. The virus is new, but a lot of the science around viruses is not new. And also we did something that I think will help, which is for the citations, we decided to do it instead of doing it in the physical book, we did it digitally as a page on the website. So we are constantly updating that and so that allows us to capture like what's the latest thing that comes in.

Darin: That's a brilliant idea because that also takes the stress of the wanting things to be correct and accurate from when you complete a book to when it's actually published. There's this big gap of time. And so then you're losing that opportunity too. I think I am going to steal that one.

Robynne: Well, I stole it from my friend Will. You know Will.

Darin: Yeah!

Robynne: So, we have the same team at Avery Penguin Random House and they were the ones who suggested and they were like, Will did this thing, you might want to think about it. I was like, yeah, Will is full of good ideas and I am going to do that. So, I do think when you're dealing with something, I mean you want to make the information as accessible to people who don't have a science or medical background as possible. But it's also really important to me that all the scientific data, the evidence to back up everything in the book is there for people who want it.



Darin: More than ever. And yeah, big shout out to Dr. Will. I want to talk about all this stuff because what you're talking about, a research buddy of mine 25 years ago was the first one to tell me Dr. Mosen Manish and he also comes from six generations Iranian farmers. And he was the first one to tell me about this idea of terrain and germ theory. And when I heard the first time, and we didn't really get into the microbiome part of it, but the environment conversation that we are creating for said bacteria and viruses are everything because they have their own intelligences of wanting to survive.

[00:07:30] Germ Theory vs. Terrain Theory

Robynne: So, let's actually talk about terrain for folks who might not know about it. And it's riveting, your friend was definitely a man ahead of his time because even though this stuff dates back more than a hundred years to the times of pasture and Antoine Bay shop, it hasn't been until the last decade even. So if you were talking about this with him 25 years ago, kudos to him. He was a man ahead of his time. And here's the thing, it's both, as you say, complex and also incredibly simple. It makes so much sense. So for those who may not be familiar with this idea of seed versus soil germ theory versus terrain theory. So Louis pasture, a name that's really well known sort of came up with this or maybe I won't say came up, but was the first to formalize this idea of germ theory, which basically says that a bad germ gets into our bodies and makes us sick. And that is absolutely true. I mean SARS-CoV 2 causes covid, HIV causes aids, different coronaviruses cause the common cold. But Antoine Byshop, who is also a Frenchman around the same time said yes, but if the soil your terrain is healthy and we can definitely chat more about what the soil actually is, then the seed, the germ will pass through without making you super sick. And again, when you think about it like of course, right, if you are healthy and you have a healthy immune system, healthy gut microbiome, you're going to do better. And when you think about it, that's true for everything in medicine. It's true not just for viral infections, it's true for cancer, for heart attacks, for lung disease, if you are an elderly person who is a smoker and overweight and diabetic and hypertensive and you have a stroke or a heart attack, you're going to have a worse outcome than a young healthy person who that happens to.

Robynne: So, we see these examples of terrain all the time. Yet, Darin, when you talk about that with viral illnesses and despite the mountain of evidence we have showing that conditions that disrupt the microbiome like heart disease, like obesity, like diabetes, are associated with a much worse prognosis. Despite all that evidence, despite a study that shows the health of the microbiome is the most accurate predictor that can predict outcome with 92% sensitivity. Outcome in terms of respiratory failure, ICU hospitalization, ventilation, death. Despite that, we still somehow think like what? How does that really work? Like how it really works is the health of the host matters. If you are a healthier person, you're going to have a better outcome. And that's a whole focus of the book is helping people understand



what are the defenses in our body, stomach acid, mucus, fever, gut bacteria, the gut lining that are there to defend us. And the cool thing is it's not even like you have to do something like take a supplement. You just have to mostly not do things like take a bunch of antibiotics or nonsteroidals or suppress a fever reflexively. So it's less about what you shouldn't do and more about just letting this incredible army of gut bacteria in all the other host defenses do their thing and protect you.

Darin: Yeah, I mean in some sort of apathetic way over the years and what hundred plus years this adoption of this idea and it's so weird as I am thinking about our call today and this meeting, I was like, it is such a victim kind of idea because if I just get this bacteria, okay, I am just sick. Like you can't do anything about it. It doesn't make any sense whatsoever. But there's this weird thing that just keeps getting passed on and it's, we are sitting here in 2022 and we don't understand that if you build the soil both literal from dirt to soil and from your gut and what we put in our mouth is the fertilizer of that soil, of course that's going to change the environment. And yet we have this push of ultra-process food. We have less and less access in a certain weird way to whole food and it's set up, I just read the Mayo Clinic research of their deemed 2.7% of the country was actually healthy from looking at all these different factors. And you're going, of course we are susceptible for covid.

[0012:00] Empowering personal responsibility

Robynne: I love that you mentioned the issue of the health being so important because here's the thing, when you talk about issues that are overwhelmingly preventable conditions, being responsible for high morbidity and mortality from viral illnesses, it can sound like you're blaming people. You're saying it's your fault you got really sick or this person died because they were really overweight or they were diabetic or whatever it is. Which is clearly not the case. Nobody's blaming people. What we are saying is you have the power, you have the power to really change direction to literally through the choices you make. And we'll get into the specifics, but you mentioned the big ones through the food you eat and the microbes being exposed to soil microbes. It's another thing I see the greener in your background, I just spun my camera around to show you all the greenery in mine. So through these things that we can do, we can literally change our destiny in terms of disease and outcome from viral illnesses. So to me it's not a matter of blame, it's a matter of empowerment. Like this is such powerful medicine. But here's the thing, as you and I know the commercialization of medicine, pharmaceutical company is not making gazillions of dollars off of people eating better off of people going out in nature. And so when you look at who has the microphone, right, and who's able to amplify these messages, it's not organic farmers or conservationists. And I think that unfortunately in medicine things have become very commercialized and I would be the first person to say I am thrilled that we have these potent medications, steroid biologics, et cetera, that we have such incredible medications but we are clearly not using them judiciously. And we are also not getting out that public health messaging that we can do things as individuals to dramatically change our outcome from a whole range of diseases including viral illnesses.



Darin: Yeah, I mean the reactive ability that we have in the healthcare system is incredible, right? The acute ability to do many things. But to your point, during all this covid, I was like, hey, you know, the best stimulus check is to get the zip code of everyone and just send them seeds, put seeds in the ground. And let's just flip this whole thing where our country was built on farmers in fact. So we were all growing our food. I grew up with most of our vegetables came from our garden. It's like getting back to, to move forward effectively. And that's where this intersection, I think we have this sick system, but the orders and you go back to past tour, it was a great order whereas the shemp was a badass microbiologist.

Robynne: Exactly. And you know, I think it speaks to also issues, even larger issues around equity and access policy because you look at the people who often have the worst outcomes, not just from viral illnesses but from cancer, from heart disease, from lung disease, from diabetes, everything. And they are people in urban areas, they are people who are socioeconomically disenfranchised. They don't have access to nature, they don't have access to reasonably priced, affordable whole foods. And when you look at the economic burden of not having access to those things and what it means in terms of disease, and you look at the trillions of dollars we are spending on that after the horse has already left the barn versus what if we actually had people living in areas where they have access to nature? What if we subsidized healthy whole foods? What if we created a system where people could have more leisure? But again, it's backward quite frankly.

Darin: I see systems just failing us every direction to the point where it creates my own mental challenges and tweaks my own mental health. So I see food deserts and you have abundance of food, you actually have farmers being paid to destroy food. The snapshot is we actually have as much food to feed 10 billion people today. But we lack the systems of connecting all of the dots. So we have system failures every place we go. And so if you were the leader of a different system, maybe it's the healthcare system, what would some of the things, because it's impossible to lay it all out, but what would be some of the things that you would start changing?

[00:16:28] How to improve elder care?

Robynne: Yeah, so one of the things I think about a lot Darin, is how our older people in this country live. And so you think about the blank check that physicians are given with Medicare sometimes to exploit older people. I mean I have a friend whose mom just went into the hospital to have a feeding tube removed and they kept her three days for something that takes about five minutes to do to pull out a feeding tube. Why? Because she had good insurance and they figured out a bunch of other things to do to her. This is a woman with advanced Parkinson's and who's in a nursing home who should not be kept in the hospital for three days. So you see the exploitation of older people, not just by physicians but by hospital systems, et cetera, getting pacemakers put in, getting all kinds of stuff to them that they don't need. And you look at people in nursing homes who are sitting there indoors doing nothing, watching television. And so one of the things I would love to do is I would love to get programs for older people in nursing homes to instead of being in these sort of depressing indoor rooms to be out on farms working. So obviously if you're really incapacitated, you



might not be out in the fields, but you could be sitting there in your wheelchair shelling peas. So, giving older people exposure to nature, exposure to animals, giving them a sense of purpose and usefulness where they are like, wow, I am contributing to the dinner we are going to be eating. we are all involved in this. And I've even thought about why don't we link up the nursing homes with the baby care? You have young children and babies who need care because the parents are working and busy. And then you have elderly people who are sitting around who would be so rejuvenated by that exposure to babies, right? And it could be amazing. But again, how do you do that from a legal point of view? From a systems point of view. But you have older people who are literally their minds and their bodies are wasting away sitting in front of a TV screen with nothing to look forward to and they wouldn't need to be, half of them wouldn't need to be on this huge laundry list of medication if they were out in nature getting exercise, growing stuff, being useful. So that's one of my pipe dreams, like how do we reform the whole nursing home elder care system? But again, Darin, we run into money, right? This old statistic, I don't know if it still holds true, is that something like 90% of the healthcare dollar is spent in the last year of life. And so warehousing elderly people doing procedures on them they don't need, giving them medication they don't really require is incredibly profitable.

Darin: And I know we are talking about some big things here, but I am a big fan of turning and facing things in order for things to change, having these conversations openly because again, we have become accustomed to things, to systems and we stop questioning them as a larger society, as effective people. And that's where I get really, upset is the wrong word, but like you, I want to change things because people are suffering unnecessarily. And this isn't rocket science, it's common sense to engage people, to engage nature, bring nature back. And I think, what's the stat? It's 93% of our lives are now indoors in a polluted indoor environment with artificial lights and electromagnetic fields and perfumes and phthalates and fire retardants. Like good luck man.

Robynne: There's a great book, I don't remember the author, but I just want to give a shout out. I read this a couple years ago. It's called Nature Deficit Disorder. The book is called Last Child in the Woods, Nature Deficit Disorder and Riveting, Riveting Exploration of the Association Between ADD, ADHD, Mental Health Disorders in Our Kids. And exactly what you're describing, and I was talking about the elderly, but on the other end of the spectrum, our daughter's a senior in high school now, but last semester, so earlier this year, spring semester, she did a semester away at a school called the Mountain School. It's in Berkshire, Vermont in, Berkshire is named because it's on the border between Vermont and New Hampshire and the Mountain school. I have to give a shout out to them. they are a branch of Milton Academy based in Boston and in the fall they take 45 kids and in the spring they take 45 kids. So it's a one semester, junior year high school program. The kids, they live on this 400 acre farm in different houses. The houses are heated by furnaces, they have to chop the wood, they birth the lambs, they tap the trees from maple, it's a working farm. And the kids from the head of school, the teachers, everybody is involved. They take turns cleaning, cooking. It is just an incredible place. And it was a transformational experience for her. Now she wants to do environmental sciences. They did a three night solo trip out in the woods where they sleep, you know, they prepare them and they learn how to survive in the woods



and then they do the solo thing. The nights she did hers, it was freezing. But the point is they connect them to nature, they challenge them. And I think why does this have to cost? Why is this only accessible to people like me who can afford to send their kids to a fancy private school? Like why couldn't we have this kind of education available to all our kids, and particularly to kids in urban areas who are literally starved for that kind of exposure and to teach them stewardship, right? So it's not just that it's good for them and it's good for their microbiome. I mean we have all these studies that show that kids who are exposed to animals and who are exposed to rurality to life in a rural environment have fewer allergies. They take fewer antibiotics, they have fewer autoimmune diseases, they are healthier human beings. But then again, this kind of education and experience also just makes some better stewards and more aware of these things. So again, systems, right? Because we probably have, when you look at the cost of education, you know that there can be a disconnect to the quality. There are probably ways to do this that would lower the cost. But again, how to get these systems going.

Darin: I mean it's a complete flip in terms of whatever the hell they are doing in school these days. Have a good buddy Tom Shady act. He used to direct movies and everything else and he was a professor at Pepperdine for a bit. And he had this, and I remember because he invited me to class and his class was life and film. He literally just talked about life and talked about things that these kids are facing and thulites everything else. And what would happen is everyone would just show up to the class. It was in a like a thulites half stadium kind of thing and people would just come, whether they were enrolled or not. I was like, Oh my God. Like this is the starving part of it. There's no applicability to some of these things that they are teaching. And so what if we flip that whole script like you're saying, and like get life lessons and learn geometry and algebra based on the geometry of life?

Robynne: Yeah, at my alma mater at Yale, I think one of the most popular classes now is a class taught by this woman. I don't recall her name, but it's on happiness. And she has a Happiness Project podcast. And that class, I mean, when I was there a gazillion years ago, it was a history class that was the most sort of highly enrolled, but I believe it's her class now. Or if it's not her class, hers is high up there. The kids, you know, they are miserable everywhere. Not singling out Yale. But the point is that our young people are yearning for connections and things that will make them feel happy and fulfilled and so on. And we know not just from studies, but we know from experience that connection to nature, this whole concept of forest bathing, Shrin, Yoku is a Japanese term as I know. You know, the studies show that it lowers blood pressure, it decreases risk for heart disease, it enhances wound healing. And it's fantastic for your microbiome. We know from data from the Spanish flu epidemic a hundred years ago that soldiers who recovered outside in fresh air had a mortality rate that was less than half of those who were inside a hospital. Something called an open-air factor, which is defined as a germicidal constituent in open air. That is, that can kill harmful bacteria and viruses. So we know this stuff from a hundred years ago and we see it over and over that nature's powerful medicine and so on. But somehow we don't incorporate it into our public health messaging and we don't make it accessible for everyone.



[00:25:23] Try Bite Ad

Darin: You know, I am a big fan of habits and I am a big fan of those habits that are leading me towards success, for happier life, clean life. And we all know now more than ever, most products just don't have us in mind. And something that's really helped me to achieve this routines, and that is using bite toothpaste. It's not in a tube. You bite down on it, you get all of the same things. I have been using it for the past two years now. It's clean. It's fresh, no harmful ingredients. So making the switch to bite was so easy. It's totally integrated into my life. It's just what I do and I love it. Knowing that I've replaced that tube of plastic toothpaste, replaced all the chemicals that are harmful to my body and the environment. These toothpaste bites, clean, vegan, friendly, and still leave my mouth feeling great because again it has to work, which is why I love them. And now I just use the same glass container that I got two years ago and it just comes in these compostable pouches to refill it in a way we go clean healthy product with mindful clean packaging. But keep in mind Bite also sells a range of sustainable clean hygiene products. I love the deodorant comes in the refillable cool little applicator device. So, if you haven't already tried their products and you are ready to invest and integrate yourself with great quality product as well as sustainable integration into your life, then this is the time Bite is offering you my listeners, 20% off your first order. So go to try bite.com/DARIN20 or just use the promo code Darren 20 at the checkout to claim your discount deal. Man, that's try bite T R Y B I T E.com/darin 20.

[00:27:44] Interview Continued

Darin: Again, it's like, this goes back to the germ theory, sterilize everything, antibiotic, every condition, even whether they are diagnosed or not. When in doubt, antibiotics, crazy diets, whatever it is, it's almost sprinting towards the dysfunction and the dysbiosis. It's almost feels like to me we are trying to make our health as bad as possible. So, let's talk about that. Like what, from your perspective and from the book and from the research, what do you see are annihilating this incredible, very connected to our health and our wellbeing and our immune system, this biome our forest inside of ourselves? What are you seeing leading to this destruction more than anything else?

[00:28:37] The dangers of antibiotics

Robynne: It really is sort of the most important question I think of our century in terms of health. And there are three big categories. I mean we are generally super sanitized, but the three big categories are medications. And again, let me be clear, huge advocate for modern medical practices, but also there's no question we are over diagnosed and we are overtreated. So, the CDC, the Centers for Disease Control and Prevention estimate that it varies from group to group, but somewhere between 30 to 50% of antibiotics are not indicated, are not medically necessary. So, antibiotics are an enormous group, not just the ones that we take for things like sinus infections, bladder infections, but the ones that we ingest unknowingly. Because a statistic is that somewhere around 80% of all the antibiotics used in the US are used in the animal industry prophylactically to prevent infections and farm animals to fatten animals and other reasons. So, we are ingesting an incredible amount of antibiotics with our food. The statistic is at a broad-spectrum antibiotic of the type you might use to treat a urinary tract infection, sinus infection, et cetera, can remove up to a third of



your healthy gut bacteria. And it's just magical thinking to think that you just take a probiotic and then you are good, right? You cannot undo that damage with a probiotic. Now if your microbiome is relatively healthy, and we will talk about what constitutes that, you might be able to manage that hit. But now we see that this sort of frequent antibiotic use over and over again, it's not just leading to resistant superbugs in society, it's leading to problems for us. There was a study that came out earlier this year showing that frequent antibiotic use in woman in middle age. And by frequent they meant that more than two months over a several year periods were associated with a drop in global cognition that was equivalent to aging the brain three to four years for using more than two months of antibiotics.

Robynne: We see these antibiotics creating disruptions in the microbiome that are the foundation for autoimmune diseases, particularly in people who are genetically susceptible. We see a connection not just between gut diseases like Crohn's and ulcerative colitis and celiac disease, but between Parkinson's and other neurological conditions between things that seem far flung like cardiac arrhythmias and coronary artery disease. So, medications, antibiotics, proton pump inhibitors, acid blockers. There was a study from 2020 that showed people taking an acid blocker once a day were at double the risk of testing positive for covid. And if you were taking, you know, the little purple pill twice a day, you are three to four times more likely to get it because we know that removing stomach acid as these drugs so effectively do leaves you really susceptible to viruses because stomach acid is one of your body's main defenses. When the virus gets in through the upper respiratory tract or mouth ends up either getting coughed and swallowed from the lungs or straight down into the stomach and stomach acid, denatures viral protein. So, if you don't have stomach acid, it may be great that you can eat your port of house steak at 10 o'clock at night and you don't have symptoms. But the flip side of that is that you have now made yourself two to four times more susceptible to viruses. And chances are your doctor, when they are prescribing that proton pump inhibitor, they are not saying, oh by the way, you are way more likely to come down with a viral illness now. And it really disrupts the microbiome, the lack of stomach acid. So, medications are a huge, huge category. And again, not using medications judiciously. There was a study from the journal Nature where they tested 41 different classes of medications and they found that 19 of them were associated with significant disruption of the microbiome. So, drugs that you wouldn't necessarily expect like SSRIs, drugs like Prozac, that can create resistant e coli.

Robynne: So, medications are a huge category. The diet, we eat a highly pesticide, highly processed food supply. Everybody saw that article earlier this year about ultra-processed foods and colon cancer, particularly in men. And we also know that there's a particular microbiome associated with cancer. There's a particular ecosystem. So, there are emulsifiers and thinners and preservatives in these shelf stable foods that dramatically affect our ecosystem of gut bacteria. And that in turn can lead us towards carcinogenesis. So, the food is another big one. And then the third is the one we started with this and it's continued throughout the thread is a lack of exposure to nature, to soil microbes, which is another huge contributor to the disruptions we are seeing. So those are all three things that we can individually in our lives address, right? We can all go through our medicine cabinet, not just the prescription medications, but over the counter supplement, we can take a careful look,



we can question and we should question our doctors, hey, do I really still need to be on this? Could I lower the dose? Could I take it every other day? I am concerned about my microbiome. And so, we can ask these probing questions and really try and streamline things in the medicine cabinet. We can pay more attention to our diet and for those of us who can afford it, we can get out of the supermarket and get to the farmer's market, right? And get that produce with the dirt on it that's coming straight out of the ground. That's microbially rich as well as nutrient rich. And we can also get outside to nature. But again, it's a little bit of preaching to the choir, Darin. So those of us who know that we are already doing that, it's all the people who don't have access, who don't know about it, who aren't doing it, that we somehow have to reach. And I think we really have to think about that on so, more of a policy level. How can we build that into our educational system, into our food system?

Darin: Man, you hit on so many important points to that and it goes back to our terrain theory, right? Because that environment is then creating a strength to the ecosystem. So, jumping back, so it's like I think of someone who, hey, I am sick, I've got a bacterial infection, I got a viral infection, I go to my doctor, they blast me full of antibiotics. Number one, no one wants to feel bad, but when they blast us, just to make it vivid for people, let's just take that one third of your forest that you just clear cut. And I love that you said that, that about the bacteria. So okay, take a probiome. Oh, I had antibiotics, I will just take a probiotic. That's like going back to that clear cut and planting a couple little bushes. You just wiped out this macro system that took years. So that person goes, gets blasted full of antibiotics, starts to feel better, and then life and stress and some other wave of some other virus comes through and then boom, they get hit. They are super susceptible because they now just cut off a third, conservatively a third of their resistance and their healthy bacteria. And now they go back to the doctor, say, Doc, I am sick again. Okay, well boom, here we go. So now we have clear cut more of their forest and now this cycle continues, continues, continuous continues, no habits were addressed, no food was addressed, no stress was addressed, no nature was addressed. And it just continues and continues. And this is my problem

[00:36:18] How to break the cycle of killing the microbiome?

Robynne: And I am glad you mentioned the cycle because again we know that not only are those maybe root causes not being addressed, but what's also not being addressed is the fact that the antibiotics themselves by reducing the amount of healthy bacteria is making you more susceptible to getting sick again. And that's very much a cycle we found ourselves in as parents when our daughter was little and was put on a lot of antibiotics, I mean beyond a lot and was really just sick all the time as a baby. And that experience was really what led me to say, hmm, what's going on here? And to really get interested and involved in microbiome research. So that's the other thing we are not addressing is how antibiotics actually make you more vulnerable to infection and one of the things I am really proud of in the book, the antiviral gut tackling pathogens from the inside out is the plan. You know, and the other books, I had a plan, but in this book, the plan is like half the book and I have to really thank the folks at Avery Penguin Random House for pushing me to that because they were like, the information is great, but people want to know what to do. We really want to make the what to do piece really robust. And so, for example, I don't just give you statistics



and say, okay, well antibiotics are ruin us to your microbiome. Don't take them 10 questions to ask your doctor if you have been prescribed an antibiotic. And obviously starting with the most obvious, like is this antibiotic really necessary? But I think really practical things like saying, you know, could I take a narrow spectrum antibiotic instead of a broad because that's going to do less damage. Really distinguishing between prophylactic treatment to prevent something versus treatment for an active infection.

Robynne: And the same thing with the drugs. When I go through in that section, the dozens of medications that can cause dysbiosis, it's not just don't take this for each one. It's like, here's a question to ask your doctor. Ask about these substitutes. Like, so with the non-steroidal anti-inflammatory drugs, it's like ask about a Cox two inhibitor, which doesn't affect the gut as much. Could that work? So, I really felt compelled to give people this practical advice. I wanted to be like somebody sitting down with me like a patient and I am going through it with them and I am saying, this is what we are going to do. Here's a plan, this is what we can do instead. Because again, my goal is power to the people, right? Like let's put the information in the hands of people so they can use it and they are not beholden to the medical system. And let me just also add, obviously I am not anyone's doctor who's reading the book, so while there's incredible information in there, obviously I want you to discuss everything with your healthcare provider and not assume that I am actually giving you direct treatment, but to the point about empowerment, like let's give people the information so they can make more informed choices and take better care of themselves.

Darin: Yeah, I mean this is hitting at such an important time because of the system of health, sick care that we have. It's so easy to propagate and push that fear as well. It's like, hey man, you are going to get hit. This is coming. You are going to get hit not to open up this can of worms, but listening to you like get out nature. Well, they didn't do that at all. They said stay inside and actually we are going to cut you off from nature. Like what the hell? You know, I knew Dr. Luke Monte, I met him in 2018, Nobel Prize winner discovered HIV. And I was working with him through another amazing doctor, Dr. Lee Lorenzen. And they were like, this is scientifically, this is not the way you treat or deal with this stuff. So, we have to change this narrative and that's why I love this book. And it gives people power again. And these habits of increasing plants increasing, the fibers decreasing the ultra process. If we all think of it like a forest and we are building our forest.

[00:40:27] Why some people are more resistant to viral illnesses?

Robynne: I love that you mentioned HIV, Darin, because while the book obviously we are all very focused on covid, I purposely didn't have covid in the title because this is really a book about viral illnesses at large. And I tell you, I went down a rabbit hole with polio. I mean I am now like a polio expert and also with HIV. So, we talk about dirt sweat vegetables. But I just want to mention a couple really other fascinating things that I didn't know prior to writing this book. Number one about somewhere between five and 10% of people are completely immune to HIV. No matter how many times they encounter the virus, they are never going to become infected and develop aids. Why? Well, complicated issue, but a lot of it has to do with genetic resistance based on people who are exposed to bubonic plague their ancestors



and how that got incorporated into their genome, right? But we look at other people too. We look at their studies with sex workers who show that some sex workers have incredible resistance to viral infections, to HIV, to HSV, herpes simplex to HPV human papillomavirus. Why? Because their vaginal flora has higher levels of lactobacillus the healthy bacteria that literally produce acid and repel these viruses. So again, I would never suggest that somebody's way of protecting themselves from sexually transmitted diseases, let me be clear, is not a massive vagina full of lactobacillus. You still want to have safe sex, but it is also clear that if you have a healthy vaginal flora, you are much more resistant to these viruses. There's an incredible study from University of North Carolina Chapel Hill that shows that men with HIV who report chronic stress in their lives, big stress related to things like unemployment and so on, their HIV progresses twice as fast because of stress. When we look at post-viral syndromes, we have an incredible amount of data from other viral infections, from latent viruses like herpes and Epstein bar virus and HIV of what stress does with latent viruses and how it can reactivate those as well as acute viral infections. How stress can make us sicker, lack of sleep. I mean these are all things that we take for granted. So, lack of sleep, sleep deprivation in the two days before you get the vaccine can make these antiviral vaccines 50% less effective if you are sleep deprived. There is a study that shows that sleep deprivation can be associated with as much as a 76% increase likelihood of being infected with covid. And that for every extra hour of sleep you get, there's a 12% decrease in your risk of becoming infected. These are not specific for SARS CoV 2, this is true generally for how these infectious illnesses work. So, when you are sleep deprived and you are stressed out and you are not eating well and you get sick, that's not an accident, that's not a coincidence. You can follow those breadcrumbs backward. And again, this is the goal of the book to help people understand, okay, what are these factors associated with viral susceptibility and conversely viral resilience and how can I tap into these so that I can be less susceptible and more resilient?

Darin: This is what I love about this stuff. I don't remember the stats. I know Sean's super good on that on the sleep side, but like I think it was like one hour less of sleep per night was like 20 or 30% more susceptible with your immune system. Like it's just crazy.

Robynne: It's crazy. I mean when I handed in the first draft to the book, I think the sleep chapter was like 67 pages and they were like, this is not a book about sleep. I understand you were really fascinated by this. So, I had to revise that, but I really encourage people, Sean's book sleep better, Matt Walker's book, Why We Sleep, these are great resources and I think it's Matthew Walker in his book or maybe in his masterclass talks about this global experiment we do every year with sleep with billions of people worldwide. When we lose an hour of sleep, we see the next day in the emergency room, the incidents of heart attacks go up like 25% from that hour of sleep lost. And then in the fall when we gain an hour, we see a correspondent drop. So, we have done that experiment, we know what happens, right when we don't sleep, we have heart attacks and we get sick, we get viral illnesses and lots of other things. So, we need sleep to literally kind of reboot the system in terms of our immune system. And there are basic science studies showing how we get a reduction in T-cell function with sleep deprivation. And I like to remind people you can go without food for a week and you will be hangry at the end of that time and you can go without water for a week



and you might start to see some kidney failure. The kidneys might start to shut down, but they'll recover when you hydrate. But if you go without sleep for seven days, you are really screwed. I mean your testosterone levels are affected, your risk for heart disease goes way up. Cognitive decline that is sometimes irreversible. So, sleep is really the elixir that we are all looking for. So, I would add, I would say dirt, sweat, veg, sleep,

Darin: Dirt, sweat, veg, sleep. These things are so intimately connected with our resiliency. I am just so excited for the world to get this information and this empowering thing that is not divorced of common sense. This is common sense stuff and it's now where we are at is we have the data, you have looked at the research, you have compiled it.

Robynne: I am not trying to sell you any, not sell you a sleep aid. Right? And here's the thing too is that it's not either or regardless of how you feel about vaccines and anything else, right? This is in addition to whatever else you are doing. This is nondenominational in that sense, right? This is what you can do whether you have been vaccinated and boosted and that is what you believe in or whether you have a different belief system. This stuff will make you a healthier host regardless of who you are.

Darin: Period. Exactly. One point that I wanted to make when you know the over medication of farmed animals, right? Yeah. So of course, they have to over medicate them. It is an impossible scenario that these animals are in, they cannot thrive. Yeah. The environment is pathogenic at its core. So, you look at these systems, so that system is failing in every direction. And so, as a majority of meat and dairy coming from those places riddled with this antibacterial resistance and plethora and medications, and then you blast that into the normal population of a subsidized, affordable scenario. It just creates a prescription for utter disaster of this precious forest that we have inside. And that's where it's like we have got to change these systems and I am not looking to them to change it. We are looking to you and to have these conversations and to empower, like your book is doing, to empower people, put seeds in the ground, put your feet on the ground, move your body, be the doctor of your home, be the mother that takes care of their children, and eliminate as much of the exposure as possible. And then celebrate the common-sense solutions and certainly read the book *The Antiviral Gut*.

Robynne: Thank you. Well, I love the analogy that you are drawing as we wind down here because it wasn't one that was immediately apparent to me a couple decades ago when I started this work is the analogy between what's going on in the outside world environmentally, the trees are disappearing, the fish are disappearing. The largest species die off since a dinosaur species disappearing at a rate thousands of times faster than they should. And Darin, exactly the same thing is going on in our gut. We have about two thirds of the species diversity of our brothers and sisters, the heads of tribe in Tanzania, or our brothers and sisters in the Amazon. And now we see their terrain is being threatened and they are getting sick too, right? So, it is the analogy between the outside world and our inside forest it's happening inside. So, if you are not that interested in what's going on in the outside world, we all should be. But if you feel a little bit helpless and oh well, there's nothing



I can do, pay attention to what's going on in your inside world because the same forces are at work.

Darin: Exactly as within. So, without so grateful that we finally were able to meet, I can't wait for people to get ahold of this book and check it out to empower themselves. Please stay connected. Let me know what's going on. Thank you so much.

Robynne: Oh, you are so welcome. Thank you.

[00:49:50] Podcast Outro

Darin: Thanks for tuning in to this episode of the Darin Olien Show. I hope you took something valuable away from this conversation that will help improve your life in some way. If you would like to learn more about my incredible guest, you can find all of their information in the show notes on my website. If you enjoyed this episode or even you didn't like it, please rate this podcast, the team and I value your feedback so we can continue to give you the most value possible. We want you to get the most out of every podcast. So please rate, subscribe, share - anything you feel called to do. I truly appreciate it and I love and value your support. So, thank you and I will meet you in the next episode.