

The Microbiome Solution: A Radical New Way to Heal Your Body From the Inside Out: A Special Interview With Dr. Robynne Chutkan

By Dr. Joseph Mercola

JM: Dr. Joseph Mercola

RC: Dr. Robynne Chutkan

JM: Most of us understand how important our gut health is to our overall health, but would you like to have the fine details of how to optimize your gut flora? Hi, this is Dr. Mercola, helping you take control of your health. Today, we are joined by Dr. Robynne Chutkan, who is a gastroenterologist – that’s a doctor who specializes in the gut – and is going to help guide us through some of these details. Welcome and thank you for joining us today.

RC: Thanks so much for having me.

JM: You are out in the North East area, the Mecca of conventional medicine. I’m sure people would be interested in understanding how you came to become involved with this area and hear your story. Because it’s typical of many doctors who are open-minded and interested in the truth, which most doctors lose, in my experience, once they finish getting brainwashed in med school. But you didn’t, for some reason. Because you walked out – it sounds funny after reading your book – that you walked out just as brainwashed as I was, but then evolved and matured in your thinking and progressed to what you’re doing now. Why don’t you share your story?

RC: It’s definitely a gradual evolution. I finished medical school, about 25 years ago in 1991. At the time, I fully, whole-heartedly believed in the marvels of modern medicine and the importance of pharmaceutical intervention whenever possible, as frequently as possible. But my aha moment, if you will, was really gradual over a period of several years.

My area of expertise is inflammatory bowel disease. I trained in New York, at Columbia for medical school and residency, and then at Mount Sinai Hospital where Dr. Burrill B. Crohn, and others, Dr. Oppenheimer and Dr. Ginzburg, first described Crohn’s disease in the 1930s. I was very immersed in everything about inflammatory bowel disease, not just the treatment, but also the history of the disease. Never once during my training did the idea that you could treat this set of diseases with food, as opposed to pharmaceutical intervention, ever, ever come up. It’s just sort of magical thinking that this could happen.

But when I arrived – I’m in the Washington D.C. area – at Georgetown to join the faculty in 1997, by virtue of there not being a lot of women on the faculty. In fact, I was the first woman in the gastroenterology faculty. As you probably know, gastroenterology has a lot of female patients. About 70 percent of the patients are female. I was busy right from the beginning, which was great. Nobody knew if I knew anything, but people heard, “Oh, there’s a woman on faculty. We’re going to come and see her.”

I started seeing a lot of patients, a lot of them were women. A lot of them wanted to know, “What can I do? What can I eat? How can I change what I’m doing to feel better?” Of course, I had no answers at all for any of these questions. I just had a lot of fancy drugs that I knew a lot about. Over the course of time, I started really to experiment a little bit, mostly on myself, quite frankly – playing around with different ways of eating and asking the patients. I did a study.

There was a young investigators’ meeting in Italy, in Capri. At that time, I still qualified as a young investigator. I was around 31. I really wanted to go to this meeting. As you know, most of our medical meetings are in places like Nebraska. Nothing wrong with Nebraska, but this was a meeting in Capri. I really wanted to go.

I decided to do an abstract, asking patients about use of alternative and complementary practices to treat their Crohn’s and ulcerative colitis. We did it as an anonymous questionnaire. I was really surprised to find out that 70 percent of the patients in my inflammatory bowel disease clinic were using some kind of complementary or alternative technique, sometimes in addition to conventional medicine. It really was on a sort of don’t-ask-don’t-tell policy.

I started to get interested and I wanted to know what were people doing and was it helping. It was a wide range of things people were doing. But a lot of it centered around the food they were eating. Over the course of time with having the advantage of these being patients who are in my clinic who trusted me – I also had the advantage of doing colonoscopies and other procedures on them, where I was able to actually look at their digestive tract and assess whether there was healing. This wasn’t just a subjective business of “Oh yeah, I feel better.” I was actually looking at people’s colons and seeing active inflammation heal – ulcers gone, strictures gone, bleeding gone. Many of these patients basically had just changed their diet.

This was the time when the specific carbohydrate diet, which is very similar to the Paleo diet, had been popularized by Elaine Gottschall in her book *Breaking the Vicious Cycle*. This was a time when this diet was really quite popular in the inflammatory bowel disease world. It still is. I clearly remember the first patient I sat down with who told me – she was somebody who’d been a patient of mine at Georgetown. She had left and gone to New Jersey, was back a couple years later. She’d had severe Crohn’s disease. She came back and was feeling great. I said to her “What are you doing?” She said, “I basically changed my diet.”

What she told me at that time, over a decade ago, wasn’t anything unusual. Now, she was eating lean protein, lots of vegetables, and some nuts and seeds. But at that time, it seemed really sort of “Wow. This is really out there.” I remember doing her colonoscopy and seeing her very severe Crohn’s healed. I could not believe it. I said “I’ve got to find out more about this.”

I think it really was the patients who caused me to question what we were doing. I started looking at the drugs we were using and looking at the side effects. Don’t get me wrong, I’m all for judicious use of conventional drugs when you don’t have lots of other options. But to be recommending and strongly recommending drugs that we know can cause cancer and severe infection and other problems, and not having any conversation about this concept of food as medicine, which is so well-proven, particularly in the gastroenterology world, I think that’s really medical negligence.

That got me started. Then my own experience with my daughter, Sydney, who was born 11 and a half years ago. All the medical interventions sort of gone wrong around the circumstances of her birth really caused me to question what we were doing.

JM: Absolutely. That's a great back story. Thank you for sharing it. I'm just curious – we won't spend a lot of time on it – but just curious from your perspective and specialization of inflammatory bowel disease, which from my perspective can almost always be removed or improved considerably, if not cured, with natural therapies, not any drugs. Unless if they really got their colon removed or something. But I'm wondering, why do you think you were so open to those experiences that occurred with your patients when almost all of your colleagues were close-minded and ignored the evidence and the obvious possibility that food might have something to do with their illness?

RC: It's a fantastic question. It's one that I ponder literally on a daily basis, because I have patients in front of me. They're not only open to this concept, they're anxious for it. They're eager to know more and to learn how to heal themselves more naturally. Physicians are so closed. I think that the biggest challenge is always convincing my GI colleagues, convincing them that putting everybody who walks into their office on a proton pump inhibitor is a bad idea, convincing them that inflammatory bowel disease can be improved, healed, sometimes cured with food.

I think the biggest issue is that we have all been indoctrinated in medical school, in residency, in practice, but we don't realize we're indoctrinated. We're constantly bombarded with evidence. You think about our national meetings. I was on the board of one of our large gastroenterological societies for three years.

During that time, I talked to my fellow members of the board about the conflict of interest that it posed to have people speaking at a plenary session at our large international meeting, 25,000 gastroenterologists and the people up there were absolutely in the pocket of the pharmaceutical industry. These are people who were receiving hundreds of thousands of dollars in grants from the pharmaceutical companies, who have been identified as key opinion leaders and are up there on the podium to educate all the rest of us.

My colleagues looked at me like I was crazy, and said "We have that disclosure slide." You throw up a slide that says you receive funding from a list of anywhere from two to 20 pharmaceutical companies, then it's done. The conflict is resolved. Now I'm clear. I'm giving you an unbiased talk. I think when you look at how – It's amazing. I don't know whether the public isn't aware of that or the physicians don't see that that's still somehow really tainted.

If you look at not what just happens in medical school, residency, or fellowship, but if you look at how most physicians receive most of their ongoing continual medical education, it's really through these kinds of conferences. They have people up there who are not just respected, but exalted in the medical community, who are telling you that this is the way to go and this is the drug to use. It is completely supported by the pharmaceutical industry. They may as well have a little tag, a little label on their suit from the pharmaceutical industry, the way the reps do.

JM: Or their race drivers.

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RC: Yes. Exactly. “Sponsored by.” They don’t realize that they are in the pocket. They really think that they are somehow providing you unbiased information. I say that because I was one of those people. I used to do a ton of speaking for pharma. It’s very intoxicating when somebody comes up to you and says “Doctor, you know you’ve done such great work and we follow your work. We’d love to have you speak.” They want you to speak as an expert. You’re a key opinion leader and all the ego stroke that goes into that, you want to believe.

For me – in the beginning, when I was doing a lot of inflammatory bowel disease teaching – it went from “We’d love you to give a talk at one of these national conferences. Here are some additional slides prepared by our scientific board that you can use to supplement your talk. You can use them or not.” Then it went to, “This is our slide deck that we’ve prepared, that our scientific team – it’s really the marketing team, as we know – but it’s always “the scientific team” has prepared that we’d like you to use. You can add or subtract.”

Then it went to, “This is our deck. You have to use the entire thing. You can’t make any changes.” When it got to that point for me, I said “You know what? I’m done. I’m not a pharmaceutical representative. I’m a physician who is here to educate all the physicians,” but it got to the point where I felt like I was just doing marketing.

JM: Then you weren’t sponsored anymore.

RC: Exactly. I was bought. I just couldn’t do it. I felt like – first of all, this information is readily available to the public and to physicians, as you know. When there’s a breakthrough study, it’s everywhere. My colleagues definitely have access to it. What I’m really doing is I’m using my reputation, connections, to convince people to use these drugs. I got to the point where I myself was not convinced. I sat there and I said “I am not going to recommend a drug to someone that I myself wouldn’t take and that I wouldn’t give to a member of my family.”

For a lot of these drugs, it’s not that I would never take the drug, but I would only take it if there were no other option. I felt it was irresponsible of me to not learn what those other options are and to not offer them to patients. For me, what changed – you mentioned this at the beginning of the program – you said, a lot of physicians who have opened their eyes, if you will, to see what is beyond conventional medicine have had some sort of personal experience, too.

For me, it really was the birth of my daughter and that whole experience with the epidural, the C-section, her getting intravenous antibiotics the moment she was born. Not because she was sick, but just in case because I had the flu and a fever, ending up in the neonatal intensive care unit (NICU) – that was really the beginning of a long series of antibiotics every month and illness. She was really fully in the clutches of this medicate, get sick, medicate more, get sick some more, medicate some more, get even sicker. I realized that if I didn’t do something, she was going to be really sick. She was going to end up with a serious autoimmune disease.

After 16 rounds of antibiotics before the age of two, I'm not sure that that is still not something that could happen. It's such a similar story to the patients I see in my practice with Crohn's and ulcerative colitis who often were C-section babies, not breast-fed, multiple rounds of antibiotics. I always ask about tonsillectomy because, as you know, it's a marker for a ton of antibiotics. Nobody whips out a kid's tonsils without first treating them again and again and again with antibiotics. Tonsillectomy, years of antibiotics for cystic acne and ultimately Crohn's disease in my office in their 20s, it's such a predictable path. I saw her heading down that road and I said I really have to do something. If we literally don't stop going to this pediatrician, this is what's going to happen.

It's sad to me as a practicing physician. I'm proud to be a doctor, but it's sometimes hard to hold your head up these days because in my office, most of what I spend my time doing is trying to undo medical mischief. Well-meaning physicians who either are not well-informed or just have tunnel vision, dermatologists putting young people on literally years of potent antibiotics, when you consider the fact that five days to a week of a broad spectrum antibiotics of the kind that dermatologists use or that internists use for urinary tract infections, sinus infections, five to seven days of an antibiotic like that can remove a third of your gut bacteria.

I think about teenagers on a year of doxycycline, followed by a year of tetracycline, followed by a year of something else. We are creating disease.

JM: Yes.

RC: I don't know how to change it.

JM: Well, this is part of the process, by educating people and having an informed public that can make wise decisions that can in fact go into their doctor's office and request this type of approach. If not, find a new physician. We could literally go on for hours because you have such a wealth of information. We may need to get you back here. But I really want to hit the highlights. We did with your stories. It's great because of Sydney's experience.

For those who don't know what NICU is, it's the neonatal intensive care unit. This risk factor, which we've mentioned many times, one of the worst things that you can do during pregnancy or after the pregnancy is to administer antibiotics. It just devastates your microbiome. That's the first message, probably one of the single most important messages, just to stay away from antibiotics unless your life depends on it. I mean, you really need to. Don't take them frivolously.

RC: Yes. I couldn't agree more.

JM: They are so potentially devastating to your health, and you don't see it initially. You don't see it initially. If we have time, we can go into some of the ways that you could compensate if you have to take it for whatever reason. But you've got to replenish and there's a lot of variety. It's all about healing the microbiome. We've actually interviewed Dr. Natasha Campbell-McBride, who I'm sure you're familiar with.

RC: Yes.

JM: She focuses on that a lot. That's a big risk factor, as is taking birth control pills or hormone treatments, which, again, alter the microflora. I'm wondering if you could focus on a few other areas. I want to leave at least a half-hour time for what I think was one of the most brilliant parts of your book, which is phenomenal. The name of your book is —

RC: *The Microbiome Solution.*

JM: *The Microbiome Solution.* It's available pretty much everywhere. What I really enjoyed most about it, I have never seen anywhere in all my readings – it may exist, but I doubt that it does – a finer description of the fecal microbiota transplant (FMTs). Even instructions on how to do it yourself, if you choose that route. It's just magnificent. You should get the book just for that. That's what I want to spend a lot of time on, because I think you are the world-class expert in that.

RC: Thank you so much.

JM: It's not something that we – Let me give you my perspective. I don't think most people need it.

RC: Absolutely.

JM: There's certainly a subpopulation that does. My version of a fecal microbiota transplant is not a transplant at all. It's just to regrow your own.

RC: Absolutely.

JM: Why don't you give us your perspective on that? I still want to go back to the inflammatory bowel disease because that's your other area of expertise.

RC: Sure. I spend most of my time convincing people they don't need a stool transplant, like you. That's really for extreme cases. There have definitely been sort of buckets of disease and inflammatory bowel diseases are one of them. There have been studies that show that FMT, fecal microbiota transplant, stool transplant, can be helpful. But the average person who comes in, who has a lot of complaints, who's experiencing brain fog and fatigue, and maybe has some joint pain and unexplained hives, and other signs of dysbiosis, or altered gut bacteria, doesn't need a stool transplant.

What they really need is what you're advocating, which is to radically change our diet and change our lifestyle. Throw out the triclosan. Antibiotics, as I like to say, only if death is imminent. I'll tell you, one of the most popular parts of the book is the rewilding approach to illness. I talk about D-mannose for urinary tract infections. Where did I learn about D-mannose for urinary tract infections? From your site. The first place I saw it. I lifted it from your site and put it in my book. I have to tell you. The D-mannose.

Women are so surprised to hear that they're not going to drop dead from a urinary tract infection. In medical school, that's what you think, right? If you have a urinary tract infection, you can get pyelonephritis, it could affect your kidneys. This could be really serious. For most women, they'd do just fine. D-mannose works great against E.coli, just as well as antibiotics. It's now thrilling to me when women come in and say, "I'm feeling great with the D-mannose."

We do all kinds of innovative things. We use probiotics in a topical form mixed with coconut oil for bacterial vaginosis for women. It works great. It gets them out of that cycle of metronidazole, and more metronidazole, and more metronidazole, and then yeast infections, and they feel worse. That is an important part of informing people and really giving them the tools to understand how their body works and how they can heal it.

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Again, FMT in severe circumstances. But what I try to get people to understand is that it is a risk benefit equation. There are a lot of things in stool that you don't want in your body. Stool is waste matter. It's a way for the body to get rid of toxins and other things. There are viral particles. Not all bacteria are good, and different things. Some things that we haven't even yet been able to identify in stool that our body is eliminating. To take all of that without being a little more careful about what we're taking is not always a good idea.

If you have a lot to gain, if you have refractory bowel disease, and you are not getting better and you've failed conventional medication, that's something that you might consider. But if you're feeling tired, you have a little brain fog, you're bloated, I don't think it's a good idea. It's really important for people to understand that the stool transplant is only as good as a donor's stool.

I love my husband very much, but he grew up in the south playing football and eating Burger King every day after practice. I don't want his stool, because it's really probably not robust enough, growing up eating a standard American diet and taking the usual complement of medications. I've always said, if I ever develop a severe autoimmune disease – I hope that never happens – and I am failing the typical options, I'm heading to Tanzania to get some stool from the Hadza tribe, or down to the Amazon. I want some high-octane stool.

People who, again, have eaten a diet that's not high in green leafy vegetables, who have taken a lot of medications, not just antibiotics, but non-steroidal anti-inflammatory drugs like ibuprofen, birth control pills, steroids, hormone replacement therapy, chemotherapy. So many of these drugs really affect the microbiome and change gut flora as it's suppressing drugs, proton pump inhibitors.

We know from a study last year that 20 percent of the bacteria in the microbiome are changed from long-term use of acid suppressing drugs, like proton pump inhibitors. The authors of that study concluded that proton pump inhibitor use was just as dangerous as antibiotic use in the long term. People pop those things like candy. They take them all the time and doctors, gastroenterologists, put people on long-term acid suppression for years without even thinking about it. Without even thinking about it.

When you contemplate donor stool, it's not just a matter of excluding serious infectious diseases like HIV or syphilis or hepatitis. It's really about evaluating how robust is the microbiome of this person, and is it going to be able to help me. I think the future of fecal transplant – because even for me, as a gastroenterologist who spends her days wading around in people's colons and sort of knee-deep in stool, I am really scatological and unflappable when it comes to sort of gross stuff. But even for me, the idea that you're going to sort of assimilate into your body somebody else's stool, it's not super appealing.

I think part of the future of stool transplant is going to be identifying within all of us what are our healthy microbes. Can we remove them from the body and amplify them in some way outside the body and store them so that if something happens and we have to be on an antibiotic or we have a severe viral illness, and our microbiome is depleted, we can then have access to them? I think techniques looking at that sort of amplification of our own healthy microbes and reintroduction. But in the meantime, there is a tremendous amount that can be done with diet. One of my favorites—

JM: Before we go to the diet, because we can spend three or four hours on that, there's just a few questions I'd wanted to comment on. One, I couldn't agree more with the identification. I think it's going to happen this decade because the cost of sequencing the human genome is going to be down to probably a penny in the next five years. It'll be given away for free. We can clearly do the quantitative analysis of every microbe in your gut, I mean your stool. We'll identify the beneficients of healthy populations and figure it out. I think that's very close.

But in the meantime, I'm wondering if you have this Western individual who has consumed the standard American diet for most of his life, three, four, five, six decades, do you think it's possible – I think I believe it's possible, but I don't know. You're the expert. You certainly have loads more experience. If a person is consuming the ideal diet, which we're about to go in to discuss, do you think it's possible that they could shift those microbes into close to the Tasmanians', or is it because of all the exposure to the toxins and the drugs, they're irreparably damaged?

RC: I think it is absolutely possible. Absolutely. To me, it is a most exciting thing. This incredibly optimistic message for where we are in medicine today. Because unlike our genes, whereas my daughter says, "You get what you get and you don't get upset." Right? That's sort of it. Even though not really because we know that genes change all the time. What turns different genes on and off? Microbes.

JM: It's not that the genes change; it's the expression of the genes that changes.

RC: Exactly. But our genes are more static. Our microbes are changing all the time. The microbes that I woke up with this morning are not going to be the same ones that I go to bed with tonight. This is incredibly exciting, this idea that we can change it. There are people that I see – it's usually not so much the diet. If you've been eating the standard American diet for decades, there's still a lot of optimism that it can change. But it's the people who have had decades of potent antibiotic use and other drugs that are really difficult and might have some degree of some

sort of cellular-microbial damage that's really difficult to shift. It becomes almost like what things look like post-chemo.

The point of chemotherapy is to sort of kill everything and hope that something survives that can struggle and make it and still stay alive, which is why we see so many secondary cancers and other problems after chemo, because you've been poisoned. It's the same thing with a lot of these antibiotics. There are some people who just can't fully recover from that.

But for most people who have eaten poorly, taken some drugs, there is incredible opportunity for recovery, but it really has to be meaningful change. The idea that you can continue to eat potato chips and soda and not eat vegetables and just take a fancy probiotic and get better is really magical thinking. I really try to stress in my practice that it's not the microbes that you put in your body; it's what you feed those microbes. I had a conversation with Elaine Ingham, a soil scientist, a couple of months ago.

JM: I've interviewed Elaine before.

RC: Yes. She talked about the importance of the soil that the food is grown in. You might think "Okay, I'm doing well. I'm eating vegetables." But if you're eating vegetables that are grown in some kind of factory somewhere and that aren't grown in nutrient-rich soil that hasn't been manipulated to kill all the microbes, again, you're still not going to really hit that target of improving your microbiome. It goes so many steps back. Of course, like most things in life, it goes back to the earth and the soil.

JM: Yes, indeed. Now, I want to take off on a point that you've mentioned earlier, with respect to avoiding antibiotics, especially around the time of childbirth. Another thing to avoid is what you had, which is a C-section. Sometimes, it's just not possible because you don't understand it's not possible or a variety of legitimate medical reasons. It doesn't necessarily doom you when you outline some strategies to implement if you have a C-section. If you can review that now, I think it might help a lot of people.

RC: I completely agree. Sometimes a C-section is necessary, sometimes it can be lifesaving for the baby, for the mother. But I find it hard to believe that a third to a quarter of women in the U.S who are having C-sections medically need them. This is about commerce. This is about convenience. This is about a lot of other things beyond the health of the mother or the baby.

The first thing, and I outlined this in the birth plan in my book, which my OB-GYN friends are really annoyed at me over this birth plan, but I felt again that I had a responsibility to do it. Quite frankly, I wish I had had this birth plan when I was giving birth. I wish I had known this stuff. It really is the biggest regret of my life, that I didn't know this stuff 11 years ago.

Be that as it may, the first thing is to try and avoid the C-section whenever possible. You really have to push because, again, your physician is very well-meaning, but they have been trained and indoctrinated to think that a C-section is fine. You might find yourself in the unusual position of having to educate your physician about the risks of C-section. There's plenty of good information out there to do that. The first thing is to try and avoid it.

If you have to have a C-section – I love the information that Dr. Gloria Dominguez-Bello provides – this whole concept of vaginal seeding. I say in the birth plan, very clearly, make sure your doctor and their team know about this. Because if you start doing this and people don't know what you're doing, they're going to call security on you and take the baby away. But the idea is – I love it because it's so low-tech, it's so commonsense, it's so brilliant – which is to take a gauze pad and soak it in the juices, what we call the perineal juices, so that area between the vagina and the rectum, soak it in those juices, plenty of that juice is happening during childbirth.

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Then when the baby is born via C-section, instead of essentially disinfecting them with antibacterial products like they do in the hospital, take this vaginal pad that's soaked in all this wonderful flora from the mother and wipe the baby down, especially the head, the eyes, the mouth, all of that. Wipe them down so that you're sort of approximating a C-section. When I first read about this, I thought this is fantastic.

JM: You're approximating a vaginal birth.

RC: A vaginal birth, yes.

JM: That is brilliant and low-tech. How big is this vaginal pad? You wouldn't want it to be fairly significant. A 2x2 gauze pad?

RC: If you had a 2x2 gauze pad, you could use a couple of them to do this. This is done very quickly. This doesn't take a lot of time. But the important thing is to let the folks know – the nurses, the doctors, the midwife, the doula, whoever is doing the delivery – that you don't want the baby wiped down with all this chemical stuff. We're using iodine-based stuff and things with antibacterial properties, alcohol. What you're doing is you're removing the few microbes that the C-section baby has. We want to do the opposite. I think that can go a long way.

Then the importance of nursing. Back to the C-section just for a minute, studies show that babies born vaginally are colonized with Bifidobacteria, Lactobacillus, and all the other healthy species from the mother's microbiome. C-section babies are colonized mostly with hospital-acquired staph. That really is as bad as it sounds. What's really astounding is that the difference can follow that baby for years.

If we look at rates of allergy, asthma, obesity, and autoimmune diseases, we see higher rates of all of those conditions in C-section babies. It's not just the immediate complications around birth, of bleeding and infection and so on. It really is your baby's risk for obesity, allergies, asthma, autoimmune diseases, and lots of other things that are affected by a C-section. Being able to intervene early on with this very low-tech inexpensive technique of the vaginal seeding I think is really brilliant. I look forward to more studies down the road showing the impact of that.

The other thing that we have to be aware of is the importance of breastfeeding. I'm not proud to admit that when I was in medical school and the La Leche folks used to come around and talk about this, I thought "Ugh. Who are these crazy people talking about nursing and it's so

important?” I really had no appreciation for the importance of that until really decades later. One of the common ingredients in breast milk, in fact the third most common ingredient in breast milk is something called HMOs, human milk oligosaccharides. It is completely indigestible by babies.

Why is the third most common ingredient in breastmilk something that babies can't even digest? It's because it's not there to feed the baby. It's there to feed the baby's bacteria. The HMOs in breastmilk feed the baby's burgeoning microbiome and then help the baby to be able to repel staph and other potentially harmful things on the mother's nipple. It's this great example of this synergy between what's going on the mother's side and what's going on in the baby's side, and how it's all supposed to work together. That's another critical thing for people to know.

JM: If you happen to have a C-section, you're swabbing your baby with your vaginal perineal secretions to actually repopulate the beneficial bacteria. The other thing you want to be careful of and what I was really impressed with in your book, and this happens so rarely, is that you want to avoid the hepatitis B vaccination because there's absolutely no need for virtually anyone, unless the person is a hepatitis B carrier, even then it's questionable, which you can easily screen for before you deliver.

I find it very rare and extraordinary for a conventionally trained physician to make the progression to understand that. You know they've truly made the complete transition once they reach that level that you have, because you clearly understand the truth about this. My first nephew, I think, from my sister who is actually chief editor for our site, it's her first child. She knew about this, too – he's actually in college now – told the staff that they didn't want to vaccinations, but he still got a hepatitis B on day one. He had some challenges that he suffered as a result. You've got to be diligent. Do your homework before, not that day.

RC: It's amazing how much stuff gets done to you in the hospital that you don't know about. Most women don't know that they get antibiotics for a C-section. They're unaware of it until they request a discharge summary and see it. I didn't know that my daughter got not one but two potent antibiotics intravenously in the NICU. You kind of sign a general consent for treatment, and you make this crucial mistake.

You know that doctors are well meaning. You know they're vested in good outcome for the health of your child, but you make the crucial mistake of thinking that they know and completely understand the ramifications of what they're doing. It's clear that they don't, and so you have to be very aware of that.

I keep telling people. People want to know “Why did my doctor do this? Why did my doctor treat me with six months of antibiotics for Lyme disease that I didn't have? Or put me on acid suppressing drugs for three months, or whatever else they did?” I explain to people, “Your doctor, for the most part, most of the ones I've met and the ones I work with, are lovely, well-meaning people, but they are not well-informed. They are getting their medical information from sources that compel them to keep practicing this way.”

JM: You had mentioned previously the importance of avoiding antibiotics. But why don't you take a few moments and discuss the hidden antibiotics, because you do this very well. There are so few books where I read it. I think there's only one point in this that I partially disagree with, but that's very, very rare. You're just so spot on. You cover the hidden antibiotics really well. That would be the triclosan, which you mentioned. Even FDA and conventional medicine understands that now. I think it's banned, if I'm not mistaken.

RC: Yes. As of September. It won't take effect until 2017, but yes.

JM: That one's gone. You don't have to worry about that. They would put another substitute, but it would take another 10 years to figure out.

RC: Although it's still in toothpaste. They said triclosan – we don't see any added benefits so we're going to insist that it be removed from personal care products, from your lotions and shampoos and so on. But you can still keep it in toothpastes and ingest it.

JM: Yeah. But the other common ones would be your drinking water with chlorine, which kills pathogenic microbes, thank God. Then the ones hidden in most factory farmed foods. Why don't you stress on those and any others and put your frame on it.

RC: Eighty percent of all the antibiotics sold in the U.S. are actually used in the food industry, animal industry primarily. You can be really judicious about saying no to antibiotics and suffering through your sinus infection and using D-mannose for your urinary tract infection, and going to bed rather than the doctor when you have the flu. But you can still be ingesting a ton of antibiotics through food, factory-farmed food.

I think this is an area where it's really important to buy organic and to really know, again, not just what you're eating, but what the food you're eating has eaten, and tracing it all the way back. Because 80 percent, that's an astounding number, we already have the highest per capita consumption of antibiotics in the world. India has the highest consumption overall. But per capita, we're No. 1. We're already taking in a lot of antibiotics just in the pure form of antibiotics, but then when you think of the fact that 80 percent of the antibiotics sold are being used in the animal industry.

Then you think from infancy, the average American child will take somewhere around 18 to 20 courses of antibiotics by their 18th birthday prescribed. Then you add to that, how many courses of antibiotics they are probably ingesting with food. It's really astounding. It's almost like this myth of Sisyphus. We're on this treadmill. From the minute we're born – one could argue even before birth with the in-utero exposure – we are in this sort of incredible downward spiral to just destroying our microbiome. You have to be so vigilant about all of these things.

JM: Yes, indeed. I'm wondering – I'd like to go back on your specialty, which is inflammatory bowel disease, and just clarify for the many laypeople in the audience who may not understand between that and irritable bowel syndrome, IBS. Inflammatory bowel disease is IBD. Irritable bowel syndrome is a functional disease. It can be painful and disabling, but it's not going to kill you. Whereas IBD frequently is given very toxic drugs and frequently you would receive

surgery. And it can kill you. It's a bad autoimmune disease that really needs aggressive intervention. I'd like to hear your protocol for that that expands upon this.

But initially, I'd like to hear your comment or experience, I guess, with the administration of vitamin D in its optimal form. Washington is a little bit better than Boston because it's further south. Most of your patients – I don't know if they're local or they fly in to see you from all over the country. Probably fly in, with your reputation – but do you encourage them to get their vitamin D naturally, as opposed to orally?

If you do, do you notice a difference in those who actually apply that to the other ones? Because I think there's a serious difference between someone who has a therapeutic vitamin D level, which is probably somewhere between 40 and 60, from those who do it naturally without taking oral supplementation, from those who actually get it through without extra supplementation from the sun, from those who get it from swallowing pills?

[----40:00----]

RC: Yeah. We definitely pay attention to vitamin D and other things, too. For example, in Crohn's patients, we really pay attention to vitamin B12, because often, the ileum, the end part of the small intestine is inflamed or has been surgically removed, and they have difficulty absorbing vitamin B12. In patients with inflammatory bowel disease, where either there's surgical removal or active inflammation - the GI tract, as you know, is very specialized in terms of what gets absorbed where - they can have low levels. If you have Crohn's disease and the upper part of the small intestine is involved, you can have malabsorption of fat-soluble vitamins A, D, E and K, magnesium, iron, different things.

Vitamin D has definitely been shown in many studies to be important for inflammation in general, certainly in patients with inflammatory bowel disease. It's one of the first things that we check and make sure that people are adequately supplemented. It really depends.

We have people who we put on high-dose supplementation, prescription dose, 50,000 international units (IUs) a week, or sometimes even twice a week. If they're low, if they're down in the single digits, versus somebody who we would say 2,000 IUs a day is fine for you, or 4,000 IUs a day is fine for you. I recommend getting 20 minutes of sun exposure, upper body, arm, and shoulders. Sun exposure without sunscreen a day. I know that's controversial in the dermatological world.

JM: Absolutely.

RC: To say the least.

JM: But I'm glad you recommend that. I actually think that recommendation needs to be modified. It might be 10 minutes during the day in the summer, and you might need two hours in the winter. Having made that recommendation, do you actually inquire in your follow-ups as to how successful they've been able to apply them? If you have, have you noticed any difference between those who do that?

RC: It's a really intriguing question. I'd have to say it's an area I'm clearly falling down in, because we pay careful attention to the vitamin D levels, but I have to say we haven't spent a lot of time differentiating between the folks who are getting it from sun exposure versus supplementation. But I think it's an important question in difference.

JM: It is.

RC: Yeah.

JM: There's just a little question in my mind. My new passion is photobiology, and I would encourage you to consider studying this because I think you're going to find a pretty dramatic difference. I'm pretty confident that no one's looked at it. But if it's successful in inflammatory bowel disease, I'm sure it's going to be equally useful on all the other autoimmune diseases. It would be an important contribution to the literature. I'd be glad to have you on to review those results, because I think it could really open the eyes of a lot of people. Consider that.

RC: Thank you.

JM: Provide us with some other pearls. I just want to comment on your book a little bit this time. I mention this frequently, but books are so incredible. I mean they're the most amazing value you can get. I'm just finishing my next book. It's going to be out next year. Most people have no idea the amount of time that goes into that. Not only to write the book, but the years of clinical experience and the pearls that you've acquired over decades, and then you condense it into a book. People can get that and it's almost free. You get this incredible insight and knowledge that is not available pretty much – the value is incredible.

Now, you have to be careful because not all books are created equal. But yours is the one that qualifies as – You're a true expert. You're authentic. There's so much wisdom in the book. It's such a great value. When you find good ones that someone you know and trust recommends, if you have the time to read, I would definitely purchase those and read it and acquire the knowledge, and listen to interviews like this.

RC: Thank you so much. I have to say that I couldn't not write that book when I really realized what was happening and what we, collectively, in the medical community were doing in our valiant efforts to improve health, the ways that we were actually worsening people's health, contributing to creating diseases. I really felt compelled to write it.

I think for me, the moment when I said "Okay, I have to put this down and make it available to people," was when I saw the results of a meta-analysis that had come out of Mount Sinai hospital, the very place I had done my GI training, looking at over 7,000 patients with inflammatory bowel disease, and identifying frequent antibiotic use, particularly in childhood as one of the main risk factors for developing IBD. I said, "Gosh. People have to know this." I couldn't agree with you more.

I'm reading some terrific books right now. One that I read recently, I actually emailed the author. She's a pediatric neurologist. The book is *The Dirt Cure*. I had to give her a little shout out. I

said “This is so fantastic. This is so important for people to know. I want everybody raising a child to know about this.” I feel the same way about Elaine Ingham’s work. I feel the same way about your work. But as an author, it is also an incredible privilege to be able to put your nickel down. As you know, it’s scary sometimes, right? People come after you. We know who they are. Sorry about that.

JM: It’s okay.

RC: It’s an incredible opportunity to be able to put your nickel down and say “This is what I think. This is what I believe in. I feel an obligation to share it with you.” But it’s also scary. I had a lot of conversations with Penguin about what I could or couldn’t say, or should or shouldn’t say. It’s scary because you know that there’s an incredible amount of money being made from some of these companies. When you say something that’s critical, their goal is to crush you. They’ve done it very effectively to a lot of people we know. It’s scary but you get to the point where you feel like you cannot legitimately not share this information with people. As you know, books are not a way to get rich, right?

JM: No.

RC: Very typically, books are probably, at best, a breakeven proposition or you lose money writing a book when you think about the amount of time it takes.

JM: Your time is more valuable. Right. For our basis here, it’s definitely way below what your normal income is.

RC: But it is an incredible way to take this information out of the office, out of the realm of one practitioner to one patient, and really get into the hands of millions of people. That’s a wonderful privilege. I’m glad. Everybody should keep on writing books, and we should all keep on reading them.

JM: You have to be discriminatory – discriminant is actually the word I was searching for. Because there are a lot of wannabe books. I can tell you, for every good one like yours, I read 10 that aren’t so good, just basically people who’ve copied and are not innovative. Using the brain God gave them to not only just take facts but to apply them and modify and innovate based on your feedback that you and your patients have given you, you’ve done that. It’s unusual to find someone that does this.

As I said earlier, you’ve broken the mold. You broke through the brainwashing, that’s essentially what it was, and the propaganda that’s carefully orchestrated by these corporate interests that’s been going on for well over a century. It’s been incredible successful. They’ve captured the minds of most of those who control the profession, the leaders and the respected leaders, and essentially created the standard of care, which if you violate, you’re at risk. But fortunately, through people like yourself, more people understand and the standard starts to change. I remember, this was actually – you graduated in 1991 from medical school?

RC: ‘91 from medical school. Yeah.

JM: My experience was in 1980 or maybe '82, where I had read Barry Marshall's paper in *The Lancet*. because I read *The Lancet* every week.

RC: H. pylori.

JM: At that time, it was *Corynebacterium*?

RC: *Corynebacterium*, yeah.

JM: I think that's what they called it. It got renamed into H. pylori like in —

RC: Later on. That's exactly right.

JM: But anyway, I started to apply that as a treatment option. I didn't understand because I was used to antibiotics to treat it, which I would never do now. I was getting results, but I got criticized by the heads of gastroenterology. They came down and kind of whacked me around mentally and like "What do you think you're doing?" Interestingly, 15 years later, he winds up getting the Nobel Prize for it. You just have to know the truth. I just am so appreciative that there are physicians, like yourself, who get it and really are able to change the course and break through the mold of the propaganda that's being fed to them in med school.

RC: Thank you so much. I don't know if we have time for it, but you'd asked me earlier about a little bit more specifics about the approach to IBD?

JM: Oh, yes. Absolutely.

RC: Through a microbial lens. I'd love to just spend a minute on that.

JM: Spend more than a minute because I think that is your specialty. That's what you spent the last few decades of your life doing. You've got incredible pearls of information that you captured from a natural perspective. We're not hearing from a gastroenterologist who's going to be putting people on these potent immune destroying drugs. Why don't you share that with us?

[-----50:00-----]

RC: Nothing gets me more excited than getting a patient with Crohn's or ulcerative colitis off of their immune modifying agent. We don't have to name the drugs, but we all know what they are. You see the drugs on TV. You hear the fast chatter that it may cause cancer, tuberculosis, serious infection, death. Getting a patient off of those drugs is really such a passion of mine. It can be done frequently. We have a success rate of about 77 percent. That's a little higher than three-quarters for being able to get people off of conventional medicine, and using just food as medicine.

I'll tell you how we do it. The first thing we do is we really get a good sense of what the degree of inflammation is. The group that we have, the hardest time with our patients with Crohn's who have what we call "fibrostenotic disease," where there's a lot of scarring and narrowing in the

gastro intestinal (GI) tract, and really because sometimes that has been going on for so long that it's irreversible and we can't get the GI tract to open up again. That's probably the most challenging group. But people with colitis who have a lot of ulceration in the colon, and people who have Crohn's who don't have a lot of scarring but have active ulceration, we are generally able to treat that very successfully.

We get a good sense of what the baseline is, a good lay of the land. How much of the colon is involved? Is the small intestine also involved? Is the higher part of the GI tract also involved? Then we look at any nutrient deficiencies. We check vitamin D, B12, ferritin, fat-soluble vitamins, etc. We sort of see where the person is nutritionally. We see what we can replete. Then we really work on the diet. I use a combination that is part specific-carbohydrate diet, part paleo, part vegan. In the book, I call it the "veleo diet," vegan-paleo. Mark Hyman calls it "pegan," paleo-vegan. I like the veleo because it focuses a little bit more on the vegan.

What we found – we actually published this data three years ago. We presented it at one of our main GI meetings, digestive disease week. That study was a small pilot study. We looked at about 12 patients. I think there were nine with Crohn's, three with ulcerative colitis. We looked retrospectively at the diet. We found some interesting things. We found that the average time for the diet to work was about 90 days. When I say to work, to really kick in to the point where people felt like they were in remission. But some people notice results in as quickly as two to three days. Other people take several months. Ninety days was kind of the sweet spot.

Two-thirds of patients were able to get off their medication or significantly reduce their medication. Again, the majority of people, when we looked endoscopically, had healing of the inflammation. But this is the most important part of the study: everybody took out the processed carbohydrates. Everybody was off gluten, off refined sugar, etc. Essentially grain-free for the most part. As people get better, we do add in some brown rice, some legumes and so on. For the most part, it was looking like a modified paleo diet.

But there were two distinct group: the group who got better and the group who didn't, despite excluding all the not-so-great stuff. What was the difference? The difference was the amount of vegetables people were consuming. The people who took out the gluten and the processed sugars – so they took out their pizza and their chips and they substituted meat for that without increasing their vegetable intake – did not tend to do a lot better. The people who really ramped up their consumption of green leafy vegetables, and particularly the stringy vegetables, like celery and asparagus and artichokes, that are high in inulin that really feed gut bacteria, really did significantly better.

We realized it's not enough to tell people to remove certain things. It's what you replace it with that's really important. I think that's true across the board. Terry Wahls in her book *The Wahls Protocol* talks about this in her multiple sclerosis (MS) patients, reaching that critical mass. I think, for her, it was somewhere around six to nine servings of green leafy vegetables a day. There is that critical number that you have to get to to really see meaningful change. We've definitely seen this in our autoimmune patients with Crohn's and ulcerative colitis.

I'm a big fan of the green smoothie because truth be told, I'm not a great natural vegetable eater. I mean I love a good salad, but it's hard to really get in this amount for every meal. I make up a big green smoothie in the morning. It's got four greens in it: spinach, kale, celery and parsley. It's got green apple and a peeled lemon. It's got fresh peeled ginger, a lot of ice and water. I have two or three, sometimes four, glasses of that. I really feel such a tremendous difference. But, again, for patients who are dealing with real disease, it's hard sometimes to get in that amount that's sort of significant nutrient density. Getting it in a blended form in the morning, so you sort of have a head-start, we find very useful.

I had an internist visiting with me in the office a month or two ago, an internist from Northern Virginia, a really good guy who's transitioning to more functional medicine practice. He wanted to spend a day with us. At the end of the day, I said to him "You thought you were coming here to see new age exciting stuff. But basically, I've spent my whole day telling people how to make green smoothies, right? Pretty innovative." We had a good chuckle over that. But sometimes, it's what it boils down to.

JM: It is innovative because how many other gastroenterologists are doing it? Not many. There are some. We sort of reached the end of our time for discussion, because I said we can go on for many hours, but I'm wondering if you could comment on how your approach has been – How have your local colleagues responded to your approach? Have they chastised you? Are you winning them over? Are you seeing their patients? Are they coming themselves? Or are they avoiding you like the plague?

RC: For my colleagues at Georgetown, it's been very good. It's sort of a peaceful coexistence. I think it's been good because I was full-time faculty there for almost nine years before I opened my practice. These are people who know me well. Many of them I've trained. They were fellows under me. There's a mutual respect there.

What I've seen is that they're starting to change a little bit. I was invited to speak at a conference this April, the Georgetown GI Conference. They dedicated a whole afternoon session to the microbiome. I spoke. I invited my colleague Gerry Mullin from Johns Hopkins Hospital who's also an integrative gastroenterologist to speak. One of my colleagues at Georgetown, Dr. Mark Mattar, he's the main person who does fecal transplants at Georgetown. We had a whole afternoon session. I was invited by my chairman who's a pancreatic and biliary therapeutic endoscopist, doesn't know much about the microbiome, but he was very open to it.

I've seen an openness, an interest. They certainly refer patients to me, and I refer patients to them. Somebody needs an endoscopic ultrasound, my chairman, Dr. Nadim Haddad is the person. He sees patients in his practice and he'll say "You know, I think Dr. Chutkan could help you." It's been nice. It's been, again, mutual respect and sort of peaceful coexistence.

The GI community at large? Not so much. I think I've been outspoken about the drugs, the immune modifying drugs, and the proton pump inhibitors. But I've also been outspoken about the amount of unnecessary colonoscopy that's done, and the fact that's how most gastroenterologists now make their living. It's one thing to go chasing colon cancer even when you know ahead of time it's not going to be there.

But it's another thing to also neglect other GI conditions, functional bowel disorders and so on, because you're spending all of your time doing colonoscopy and you're having some other person in your office with much less medical training actually take care of the patients. I've been very critical about that. That's been a little less well received. But I still remain optimistic. I think most doctors want good things for their patients. They're conflicted. They don't know they're conflicted. It's like what Harriet Tubman said, "I saved thousands of slaves, and I would have saved thousands more if only they had realized they were enslaved."

I think physicians don't know that the wool has been pulled over their eyes. They don't know that they are essentially working to market drugs for pharmaceutical companies, some effective, some not effective, almost all with side effects that people would like to avoid. I think it's so important for the patients to not just abandon their doctors.

If you have a doctor and you have a decent relationship with them, but they're still hell bent on prescribing an antibiotic you don't need, I think it's so important to say to them "This is why I don't want to take the antibiotic. Here is a book you should read." Because that's what people did with me. People trusted me. They felt that I had their best interest at heart. They took the time to educate me and I'm so glad that they did. I think that we have to bring a colleague along. We have to bring our physicians along and not just abandon them entirely.

JM: Thank you for that. That's such an eloquent explanation of that process. I don't think I've heard a better one. It really articulates what the primary problem is. I think a subset of that is just typical human behavior, because most people, non-physicians, don't understand or realize that physicians are compensated mostly for procedures. Gastroenterologists are one of the higher compensated medical professionals because they do so many procedures. That's where they make most of their income. They don't make money by telling you to make a green smoothie.

RC: Not at all. They lose money.

JM: They lose money, just like you do. We see it so consistently. Especially like in the agricultural area where agricultural scientists who really understand the dangers of GMOs. They're basically kicked out of their universities. They lose their positions and their funding because they're funded by, essentially, Monsanto, or Bayer now.

[-----1:00:00-----]

Great kudos to you for the courage to stick to the truth and avoid the endorsements for the pharmaceutical companies. Because you saw this. You tried it and it didn't work and you know. You really truly want to help people. You do so with the book.

So one of those books you can bring your physician if we want to prescribe antibiotics is your book, *The Microbiome Solution*. It really would open the eyes. As you can see, Dr. Chutkan is really incredibly articulate and the book is a great representation. She actually wrote the book. It wasn't ghostwritten.

RC: Every word.

JM: Yeah.

RC: I was an English major in college. Before we sign off, I do have to say that I was emboldened by practitioners like you who have been doing this for a very long time, and play such an important role in this education of the public. You've been criticized by conventional medicine and by pharmaceutical companies. It really emboldens those of us who have our eyes open to say "You know what? I'm going to speak the truth. I'm going to educate patients. I'm going to try to bring a few colleagues along. I'm going to be okay." Thank you so much for that.

JM: You're most welcome. It gives me great pleasure to know that there are individuals like you who are taking up the baton and spreading the word. I think we're going to see you in this massive explosion of the truth being spread. Ultimately, more people are going to understand that the emperor has no clothes. It's just all this big propaganda scam.

RC: Yes. It's happening.

JM: Yeah. Thanks for what you're doing. I really appreciate it. Get that book because it's a great value and has loads of information that is going to help you, your family, friends and those you love.

[END]