



# SIBO Research Breakthroughs

## Dr. Mark Pimentel and Dr. Allison Siebecker

**Shivan Sarna:** What exactly is the MAST Program that you are leading?

**Dr. Mark Pimentel:** So, the MAST Program is otherwise known as a Medically-Associated Science and Technology Program. One of the things that I think, over the years, as we've been working to try and develop new therapies for patients is that companies that are trying to market or produce products don't always have a patient right in front of them—or they don't have a patient right in front of them—whereas we do. And so, sometimes, I think we know better what a patient may want or need because we're in the trenches.

**Dr. Mark Pimentel:** And we were developing new ideas and new thoughts around SIBO and the microbiome. And we said, “Well, let's go further along the path and see if we can help move things without being driven by the money of big pharma and their agenda” and sort of move things in an agenda that's very patient-centered.

And so, that's why we formed the MAST Program, to really bring not just the science but the biotechnology to people and in a way that is patient-centric. That's the whole approach.

**Shivan Sarna:** So, a refreshing approach indeed. That's great. Great, great, great.

Okay, we are going to get started right now. Dr. Siebecker is here. She's just hidden herself off of camera. There she is! Dr. Siebecker, just chime in and just say hello to everybody. The camera doesn't go to you until you we hear you.

**Dr. Allison Siebecker:** Oh, hello, everybody. Hello! I'm just going to go off camera during Mark's session.

**Shivan Sarna:** Okay. And Dr. Siebecker will be giving us an update about what she's been up to over these many months of hiatus. That doesn't mean resting. It means working and researching, right?

Anyway, Dr. Pimentel, thank you for all of your work. Please tell us what are the newest research updates that you recently revealed at Digestive Disease Week? Thanks for being here.



**Dr. Mark Pimentel:** Oh, it's my pleasure to be on this podcast.

So, we know SIBO is an important disease. We know it's a very significant contributor to IBS. About 60% to 70% of IBS patients have SIBO. We know slugging SIBO with antibiotics seems to help. And there's other, of course, alternative ways to do it. But we want to be more finesse. We want more accurate understanding of SIBO.

And so, as part of the MAST Program, which I described earlier, one of my missions was what was now called The ReImagined Study. The ReImagined Study is that every patient who's coming in for a scope gets some juice sucked out, and we look at their small bowel microbiome.

You go back to 2007 when the Human Microbiome Project was published, describing the microbiome of the gut, they called that the microbiome of the gut, but they only looked at stool. And so we said, that's really not where the action is. The action is in the small bowel because that's the absorbing surface. And the surface area of the small bowel is the size of a tennis court. You spread peanut butter across the size of a tennis court, that's a lot of peanut butter or a lot of bacteria.

Anyways, to cut to the chase, we did a lot of things or presented a lot of things on the basis of the first slices of the ReImagined Study, the first large scale look at the small bowel microbiome; and for this particular audience, finally finding the individual characters and bugs that compose SIBO.

And of course, different SIBO, different bugs. We've touched on that with methane. And we'll probably get to that later in this. But we're trying to define the phenotypes related to specific organisms that are part of SIBO, and then tailor your treatment eventually so that we know what works for you and why another thing doesn't work.

**Shivan Sarna:** So, the big question is... does this impact my treatment program right now? Is Rifaximin going to be off the table? A lot of people were asking, "So is everything I knew wrong?"

**Dr. Mark Pimentel:** Well, it's more like everything you knew is modifiable. The thing about SIBO is—

Well, first of all, what we did with the first ReImagined Study that we presented at DDW was we showed that deep sequencing matches culture and matches breath test. So for those of you out there who do breath testing, we were able to validate that the breath



test is accurate and that any of the cynicism around breath testing has now been dispelled. So the breath test is accurate.

What the breath test doesn't tell you is exactly the composition of the microbiome.

And so, we're still with Rifaximin because that's the most effective use of Rifaximin. They're FDA-approved for IBS with the treatment of the microbiome in mind.

But we're hoping that, in the coming years, as we define exactly what bugs are characteristic of the phenotype of that person, we'll be able to tailor therapies and new therapies. Nothing yet... but this is the beginning of the new generation of things.

**Shivan Sarna:** That's very exciting... very. You were talking to me earlier about like you confirmed what was cultured. Can you just kind of explain that a little bit more. A lot of people heard high line and headlines, but I don't think they really understood what the difference was.

**Dr. Mark Pimentel:** So, one of the differences is, for example, people have said that culturing the small bowel is the most accurate way. And so we did that. And we did find that correlated with breath test. That's some part of it.

But we also found that when we found those cultures to be positive, the deep sequencing verified it. The deep sequencing is the most accurate test, and even the most accurate fit with the middle accurate, which is culture. It fit with the non-invasive which is breath testing. So that was sort of the novelty.

**Shivan Sarna:** So, about the breath tests, they have been confirmed. There's no cynicism around them or there shouldn't be.

What about the different substrates? Do you feel like the substrate—you know, lactulose and glucose and all that, do you feel like that makes a difference?

**Dr. Mark Pimentel:** Well, I can tell you that the people who do glucose should be a little wary because we weren't able to validate—or we didn't validate glucose. We validated that lactulose was predicting what we saw on the aspirates.

So, considering the fact that glucose detects half the number of patients as lactulose, it's not the right test. Lactulose will be the test of the future because of this.

**Shivan Sarna:** Okay. So, your reveal was about hydrogen, right?



**Dr. Mark Pimentel:** Yes. So, for this particular analysis, we looked at the hydrogen portion of the breath test, found that the cultures fit that, the deep sequencing fit. But then in the metabolic analysis we did, the hydrogen production—this was another cynical comments made by critics of the breath test. They said, “No, no, the lactulose is getting to the colon. And that's where the hydrogen is being produced.” And we're sucking juice from the duodenum and showing that the bug or the microbial composition was up-regulated hydrogen production.

So, the hydrogen is being produced in the small bowel, folks. We have data to show that that's where it's happening.

Look, you can be cynical. That's why there is a scientific debate. And the challenge is then on me or others to prove if we're right or if we're wrong. And so, fortunately, it came out in our favor this time. And for sure, hydrogen is being produced from the small intestine.

**Shivan Sarna:** Okay. We have a ton of questions. And I know we're going to keep talking about the research.

But when you were doing all of the—it's not a biopsy. But when you were gathering all those juices and studying them, are you seeing mast cells? Were you looking for them at all?

**Dr. Mark Pimentel:** So, the ReImagined Study is a very, very broad collection system. So we're collecting the patient's questionnaires. We are taking a biopsy to look for mast cells and to look for all the chemicals that the lining of your gut produces in response to the bugs. We are taking the juice—the bugs and the juice that the bugs are in—to do compositional analysis. We're taking genetics. And we're taking blood to see if—

One goal is, two years from now, we have a blood test for SIBO. We don't have to do the breath or whatever. All these things are possible depending upon if we find one bug with one disease. And that's our goal. Our goal is to find the one bug related to one disease and see if we can get easier and easier and easier ways of diagnosing patients save time, save money mostly.

**Shivan Sarna:** Dr. Siebecker and I were talking about one of the people on my team whose husband just had appendicitis. And I know that was like a big breakthrough. Could you talk about the breakthrough associated with the appendix?



**Dr. Mark Pimentel:** Yeah. Also, one of the Reimagined sorts of things we've done as part of the MAST Program is we—

First of all, for the small bowel, going back to that, we had to validate all the tools and instruments for small bowel. So all these people who've been sucking juice, you know, they were not doing it as well as they could. And so, we had to develop new tools, new sterile instruments. We had to validate the techniques for getting the bugs out.

But as part of that process, we also came up with a technique where we could take tissue that's been sitting in the pathology department from your appendix or gallbladder from 10 years ago, drag it out of the formalin, unfix it and still find the bugs.

And so, we did that with these appendices. And we found that 45% of appendicitis was food poisoning; *Campylobacter* specifically.

**Dr. Mark Pimentel:** And so, it's really the first description that one bug is causing appendicitis. Can you imagine... that's the most common surgery in the United States and nobody knew that *Campylobacter* is the cause of half of those cases almost?

So, that's a big finding. And we're continuing to dive into different organs and different tissues that may help patients.

**Shivan Sarna:** That's huge! Allison, isn't that huge?

**Dr. Allison Siebecker:** I'm here to chime in to say my mind was blown. I was just going through all of the abstracts, and I was like, "Oh, my God!" That's, for doctors, huge news! Oh, my God, Mark.

**Shivan Sarna:** Well now, you can do a rapid test, and you treat them with antibiotics instead of lopping off that organ. You have all your organs for a reason, including the appendix.

And we think—that the other thing we found with the appendix is kind of interesting. We think the appendix is your—this is hypothetical. We think it's your lifesaver.

Let's say you have something that wipes out all the bugs in the intestines. You take antibiotics. The appendix has the magic mix to repopulate. And so all these bugs are tucked in there. the antibiotics don't touch them as they're going through. And then, they just repopulate your colon again, so that you're back to normal.

And when you take your colon out, maybe that doesn't happen. Maybe you don't repopulate correctly.

So, these are all things that we're exploring now based on these findings.

**Dr. Allison Siebecker:** I just want to ask a question about that. In that study, were you able to prove that theory of the repository of your microbiome in your appendix?

**Dr. Mark Pimentel:** So, in the normal appendices that we had—because we had some normals, and then we had patients with appendicitis, the normal appendix contained almost an identical composition to what's found in stool which is pretty remarkable and in exactly the sort of the same—it's never exact, but it's very compositionally similar to what stool looks like in a normal person. So that's interesting because it's tucked away with a little valve on it. And it just kind of holds things until you need them again.

The appendix may be more interesting than we think and may not just be a throwaway organ.

**Dr. Allison Siebecker:** That theory is what Dr. Sandberg-Lewis has been teaching the whole time I've ever known him. It's a common naturopathic teaching. It's just incredible that you're able to prove it. That's just incredible.

**Dr. Mark Pimentel:** More to do... more to do... always more...

**Dr. Allison Siebecker:** And that study is incredible because, to my knowledge, no one really knew what was causing appendicitis. So it's just incredible.

**Dr. Mark Pimentel:** Yeah.

**Shivan Sarna:** That's brilliant, really brilliant.

Were you saying that all of that, that is a similar population to the stool—and you said in the past that the stool has the dead bacteria. In the appendix, was that live?

**Dr. Mark Pimentel:** We didn't cultures because these are all preserved organs. So I can't tell you for a fact that that's true. But compositionally, the stool, half the bacteria are dead. IT means that the composition is correct, but the numbers are off.

So, if you found a million bacteria in there, it's really only 500,000. But the composition of 500,000 is the same as it would be in the million. It's just half of them are already dead. So that's sort of how you look at it.



**Shivan Sarna:** Very cool. Okay, let's say we have food poisoning, and we have post-infectious IBS, are we at a higher risk of having appendicitis?

**Dr. Mark Pimentel:** So, what sparked this is a couple of things. I always had the feeling that appendicitis was untapped. And we didn't have the technology to get the microbes out of there. And I always felt like it didn't make sense why people just suddenly get appendicitis out of nowhere.

But a patient of mine who had eaten at a restaurant locally had gotten food poisoning, developed IBS, and then developed appendicitis. And it was proven that they had *Campylobacter*. And so I said, "Well, that's very interesting. Now that we have this technology, let's look." And that was it!

So look, that's why seeing patients, connecting the dots, then going to science makes all the difference in the world in terms of developing things and finding things. You've got to be in the trenches, you got to see all these patients to see all these rare events and things that other people may not pay attention to or notice.

**Shivan Sarna:** So, just to wrap up on this topic, if you've ever had a FMT, *fecal microbiota transplant*, would the appendix plays a role in that theoretically in like replicating your own again or mixing it? It's just a wild card question, then I will move on.

**Dr. Mark Pimentel:** You could have a post FMT test which is slightly off the question, but I don't like FMT for anything but *C. diff* at the moment because, I think, what we're seeing is that in a lot of other instances, it may be harmful if not used correctly.

But I don't know what happens after FMT to the appendix or how the appendix plays a role and preventing the FMT from taking—all those things are lots of interesting questions that emerge that I don't have answers to yet.

**Shivan Sarna:** Okay. So what else can you tell us about your reveals at DDW? And then, we're going to dive into some general questions in about 10 minutes. Lay it on us.

**Dr. Mark Pimentel:** Okay! So the other thing was the proton pump inhibitors, don't do anything or hardly anything to your microbiome. So I think I get this question on almost all podcasts. "If I'm on Nexium..."—sorry, I don't want to pick a particular product name. "If I'm on a proton pump inhibitor, is that going to mess up my microbiome?" And shocking, it doesn't do anything.





There is a slight change in Clostridial species, and that's it. There is no SIBO. We didn't find SIBO more commonly in the PPI patients versus no PPI.

I was personally shocked because I thought at least there'd be something. But to be honest with you, it sort of makes me happy to know that in the sense that the human body is very redundant. You've got acid that kills bacteria, but then you've got the migrating motor complex that keeps things in check and you've got bile that keeps things in check. And so, when one thing alters or is weakened, other things can take over.

And we do know when people are on PPIs, they have more migrating motor complexes. So it's interesting that a second wave or a second—you know, it's sort of like you have two walls that prevent the castle from being destroyed. The first wall is broken; the second wall is still up. I think that's pretty amazing, to be honest.

**Shivan Sarna:** Speaking of the body and the things in the body protecting and being redundant and all that, have you been exploring biofilms at all?

**Dr. Mark Pimentel:** Yes. So biofilms is part of what we're looking at. Again, look, with the amount of material we get from one patient in the ReImagined Study, just one aspirate, we get about 800 pieces of information, not to mention all the cytokine panels we do if we add those in...

But we take a little biopsy. We wash the biopsy to get the biofilm. The biofilm is kept separately. We haven't looked at all of them because the amount of money per patient for all these samples is extraordinary. And so we looked at the microbiome, we looked at the metabolomics, we have the serum back, we have the biofilm bank for other questions that emerge as we continue to accrue patients in the trial.

Our goal is to try to get to 10,000 patients so that we can really connect the dots once and for all.

**Shivan Sarna:** Do you have studies going on right now that people who are listening and we can spread the word about applying to do a study—how many times do they have to come to LA, that kind of thing?

**Dr. Mark Pimentel:** Well, right now, we haven't gotten to methane yet. But the lovastatin, the non-absorbed lovastatin study is ongoing right now. We're super excited. It's going fairly briskly. We're trying to enroll 150 people before October. And that's exciting.





In the first trial, there were a few patients where their methane went away and didn't come back. So we're hopeful that this will create a sort of a new world order of the microbiome for methane people who have constipation.

So, you have to be between 18 and 65. You have to have constipation—constipation without medication. So if you're on meds, and you're doing okay, you could stop them and still be in the trial as long as you're constipated and have methane on your breath test.

It's five visits to our center. So for those who are outside of California, it might be a little challenging, that's all.

**Shivan Sarna:** And actually, in our Facebook group, you guys, there's a place where you can find out about how to apply to be in the application process for the study.

Okay, do you want to switch topics to methane and hydrogen sulfide? Two of your favorites...

**Dr. Mark Pimentel:** So again, our goal is to sub-categorize SIBO because there's no one-fits-all treatment. One of the things that I say to patients is I say, "I'm not working for the patients who respond to drugs. I'm working for the patients who don't" because when I give an antibiotic, Rifaximin and so forth, and the patient do great, and I don't see them for two years... that's great! That's great for them. We've made some big leaps in that. And I'm very, very excited about that.

**Dr. Mark Pimentel:** But the patients who continue to be in my clinic are the 30% who didn't respond. So we need to come up with better answers for them. One of the better answers is maybe this SYN-010 lovastatin product. Another may be that we're missing a whole gas, hydrogen sulfide.

So that, we didn't have any abstract at DDW on that. But we're very close to making an announcement on hydrogen sulfide. You'll have to stay tuned.

But hydrogen sulfide, we know from the study we presented last year that it's predictive and associated with diarrhea. And we think that the patients with more extraordinary diarrhea—or even diarrhea in general because the hydrogen sulfide is proportional. More H<sup>2</sup>S, more diarrhea. Same like methane—more methane, more constipation or the more severe your constipation is.



So, that's a very exciting area. And unfortunately, you have to stay tuned for a little while longer for that story.

**Shivan Sarna:** I know he's going to share that information with us as soon as he can, I know!

**Dr. Mark Pimentel:** I promise as soon as I can.

**Shivan Sarna:** Thank you so much.

I guess the question is if someone has hydrogen-dominant SIBO, do you know how they get methane SIBO? Do you see any causation there, any mechanism that has made that happened in particular for some people versus others?

**Dr. Mark Pimentel:** So, what we've seen is two specific ways that this happens—well, three (one new way).

The first is that we live in our environment with our family. And we do see that methane clusters in families. We've noticed that in our clinics. You're sharing bathrooms, you're sharing whatever. Hopefully, you're not sharing toothbrushes. But you're sharing items in the house. And in this, I don't want to say methane is contagious. What I want to say very clearly is that methane colonization increases with age and exposure. And the older you get, the more people suffer from methane. But we think that a lot of the people who are younger, they probably shared something with their parents and their parents had methane and so forth.

But having the methanogens is not the crisis. The crisis is when they bloom or when they become overpopulated and then you get the symptoms.

The second is we know from sub-Saharan Africa the prevalence of methane is far higher than here—double or triple than what we see here. And so, in African and even African-American populations, we do see methane at higher levels, particularly in African-American—well, I'll leave the conclusion in that sense because we haven't *unveiled* all of that yet.

I know! You almost caught me.

But we want to make sure we don't want to reveal information until it's published because then they won't publish it. But we do find some very interesting racial and family...



And then, the third way to get methane is a fecal transplant. We published the first example of this where a patient with *C. diff* found a donor, the donor had methane, they did a transplant. And now they're constipation hell from methane.

So, that's some of the pitfalls and warnings about fecal transplants.

**Shivan Sarna:** Okay. So, we've covered some hydrogen, we've covered some methane—and appendix of course. Anything else that you want to talk about?

**Dr. Mark Pimentel:** yeah, from DDW, I think the most exciting thing is the second generation testing for IBS, the IBS-SMART test. We now have a more accurate way to diagnose IBS.

What I tell patients is, “If I know where your IBS came from or your SIBO came from,” because it's in the same path. You get exposed to food poisoning, the toxin produces an antibody, you produce autoimmunity. And the deeper your autoimmunity, the more your motility is off, the more your bacterial overgrowth is there—and sometimes, if it's really high, these antibodies, the harder you are to treat.

Plus, if you have food poisoning again, they go higher. And that's even worse. And so, you have to—I mean, I need to know. And I'm doing this every day in my clinic. All our doctors are doing it and a lot of people in California. I think it rolled out mostly in California to start with. But I think it's in 35 states now. So, it's rolled out quite nicely.

But the point is you know, and then you know about the result, and then you're able to at least guide the patient.

But the second part of it is to think about the patient. Again, I put the patient right in front of my eyeballs when I do stuff. The patient wants to know why they have anything.

**Dr. Mark Pimentel:** So you have SIBO, “But why do I have SIBO?” You have IBS, “Why do I have IBS?” You want to know why. And this test tells you it was from food poisoning and you better be careful when you travel, careful what you eat. And also, it may guide prognosis.

So, I have some patients where, over time, I've seen their antibodies drop if I tell them and guide them through the process of what they're doing. I told this story. Maybe I've told it on a podcast before. If I have, forgive me, to the viewers.



But I have one patient who was positive on the antibodies. And she says, “My family wants to go to Costa Rica.” And I said—you’ve heard the story?

**Shivan Sarna:** Yeah, I want it again. It’s a good one.

**Dr. Mark Pimentel:** Oh, okay, okay. I’m sorry.

**Shivan Sarna:** No, it’s great.

**Dr. Mark Pimentel:** But I love it because it’s a patient who has worried about food poisoning and driving the antibodies up. And I said, “Don’t worry. We’ll give you a prophylaxis for food poisoning.” So, we gave her, off-label, half a Rifaximin with every meal for the whole trip to Costa Rica. There were 20 family members on a bus, and 19 had food poisoning. But my patient, the sick IBS patient, was well the entire time.

Now, I feel bad for the other 19. But the point is, I wouldn’t know how to do that. I wouldn’t know how to behave in that way with this patient without this type of test.

So, that’s why I’m super excited with it.

**Shivan Sarna:** So, we had a lot of questions about that exact story actually. Is it okay to take these antimicrobials, herbal or the Rifaximin, fairly frequently as a prophylactic, like you just said, not just like on a vacation?

I know one of our regulars, she doesn’t have an ileocecal valve and has the antibodies. So she’s super concerned about that.

And where does the role of a prokinetic play or come into this equation?

**Dr. Mark Pimentel:** So again, we have to accumulate data to provide evidence-based approaches to all of this. But what I can tell you is, in my practice, if I see somebody with high anti vinculin, the higher the anti vinculin, the more neuropathy we see visually on the patient. The patients who are the most distended, and some of them even end up in the hospital with distension, are when they’re greater than three or greater than 3.5, so almost at the saturation point of the test. Those are the sickest patients.

But what I’m getting at is, on the spectrum, if the vinculin is elevated, it means that you’re more likely to need a prokinetic after antibiotics. You’re more likely to relapse is what we’re seeing in the clinic.

The test that I like to see is the CdtB is up but the vinculin isn't because it may be that you're that patient in those large clinical trials where you got food poisoning, you have IBS, but a year later, it all goes away because you're not developing the autoimmunity.

So, the two antibodies work in sort of tandem in guiding how to tell the patient, guide the patient, and give them either optimism or temper—not temper enthusiasm, but maybe guide them as to a better approach, a more aggressive approach depending upon those markers.

But doctors don't know about all this information yet. You see, this is the problem. So they see these markers, and they're like scratching their head because they haven't been educated around all the stuff you and I are talking about right now. And we're getting it out there, but it takes time.

So, if people out there in the middle of the country somewhere are going to their doctor, and their doctor is like: “I don't know anything about this test,” they don't yet. It's like the early days of Rifaximin in 2006 when we first published. People didn't know and it just takes time for everybody to get up to speed. That's all.

**Shivan Sarna:** And I think it's the role of the citizen scientists or whatever you guys want to call yourself, the impatient patient, your own patient advocate... spread the word. That is what the internet is for—wishing people happy birthday on Facebook and spreading the information about the IBS SMART test and this kind of thing.

**Dr. Mark Pimentel:** Empowerment is what I call it. *Patient first*, that's my mantra.

**Shivan Sarna:** So, that's what I did. I walked in with—I literally printed studies out. I printed out the homepage for the IBS-SMART test. They have tons of links about—they're in the Facebook group. Just go to the website, it's very good.

But are the studies or the things that you were talking about at DDW, they available for a patient to like download, look at...?

**Dr. Mark Pimentel:** DDW, I think you can get to the website, and you can download it now because they've been presented. So the abstracts are available. I can't cite the website exactly or how it works. But if you go to DDW.org, I think you can find it.

**Dr. Mark Pimentel:** But one more thing I want to say about the test is that, look, think about the patient who comes to the doctor, and the doctor says, “Well, we need to do a colonoscopy” and this and that—and I'm not saying we shouldn't do colonoscopy when

they're needed, but wow, they are expensive. And not only that, they're invasive. You have to prep, you have to take a day off work. Your ride has to take a day off work to drive you. And then, you get an invasive procedure. And it's almost always negative especially if you're under 45 years old. And so, it just saves a ton of money to get the answer and get to treatment.

**Shivan Sarna:** Okay, just a clarifier from Josh. With those low dose of the Rifaximin—he's like a nomad. He travels all the time. So he's constantly exposed to different foods. What do you feel like is a guideline for safety for taking these antimicrobials antibiotics with food to reduce the chance of getting food poisoning?

**Dr. Mark Pimentel:** So, we know Rifaximin is safe because the FDA, unlike any other antibiotic that I know in history, the demand that the FDA put on the trials to prove that it doesn't mess up your microbiome and stool, that it doesn't cause resistance, it doesn't get absorbed (so it's not going to affect the rest of your body), Rifaximin has been proven safe in many, many facets.

So, have a Rifaximin a day. Have a rifaximin with each meal is what I do, how I treat my patients. But again, that's not on-label use of the drug. But I can tell you that I know a lot of gastroenterologists who, when they travel, they're doing that. And so, if it's good for them, why wouldn't they do—

So, what I'm saying is they're protecting themselves when they travel. And patients with IBS who are susceptible...

Let me tell you another thing about the SIBO IBS patient. This has been shown. We did a study with the US military. We said, "Okay, so if these antibodies go up, and you get autoimmunity, and you get stasis of the gut to get SIBO, then maybe if you already have IBS, you are at risk for getting food poisoning more easily because everything's so slow."

And the US military did the trial. They said, "If you have IBS, and you get deployed, you're three times—2.9. Almost three times higher chance of getting food poisoning when you went into deployment," a.k.a., when you travel, you're three times more likely to get infected than your other family members who don't have this.

So, we want to mitigate that. And I certainly don't want the antibodies going higher because that will make you worse and harder to treat.



**Shivan Sarna:** Got it! Is IBSchek the same thing as IBS SMART. Their websites both say they check for the same two antibodies.

**Dr. Mark Pimentel:** Well, IBS SMART is the second generation test. The paper, by the way, is in press this week. You can search it on PubMed. It's more specific, more accurate, and has a greater post-test probability. The post-test probability of having IBS if both markers are positive are now greater than 98%. And both markers are greater than 90% specific now.

And the likelihood ratio, which is a very complicated statistical thing, both markers are more than 5 because we were able to create a test where the thing, parts of the protein where the antibody glum on to, for the test are more exposed, and therefore easier to detect.

Bottom line is the test is better. It works better. And it's the next generation.

And of course, we're working on generation three because we never stop. And so stay tuned for something even better in the future... we hope.

**Shivan Sarna:** Ooh, this is exciting. This is breaking news. And you're in it obviously. But in my lifetime, I don't feel like I've had a lot of breaking news in the medical area of stuff that impacted me. My sister had psoriasis for decades. Nothing has seemed to change. She's on a biological. It's better. And I know people are working on that all the time. But that was like nothing, nothing, nothing... better, you know? And this is like you—nothing, nothing, nothing. Now we have real information. And it's going to get better.

**Dr. Mark Pimentel:** Well, you know, Shivan, all of that is very exciting because it comes in these amazing bursts to you. But for us, it's like the first 500 ft. of a rocket taking off where it looks like it's going really slowly. For us, to gather the data, to get the hundreds of patients, it's months and years and tons and tons of money to make it all happen.

**Dr. Mark Pimentel:** And the NIH doesn't fund this. It's crazy! I mean they don't fund the most common gastrointestinal disease on the planet, IBS and SIBO. And they just don't put dollars into it.

So, we're sort of on our own trying to scrape or scrap money together. And that's not a solicitation. I know it's exciting. We have big steps every six months or so. But the





amount of work that went into the last two years, knowing what this step would look like, and trying to prove it... it's a lot. It takes a lot of time and energy and money.

**Shivan Sarna:** And there's no such thing as an overnight success. You've been working on it for years, right?

**Dr. Mark Pimentel:** I was going to say a slow-moving train wreck. But it's not a train wreck, it's a rocket taking off. I think that it's a better analogy. And I think we want the rocket to go higher faster. But it's all limited by resources as always.

We're not in a bad place. But I'm just of the type that I want an answer yesterday every day. I'm in the clinic, the patient comes in yesterday—Tuesdays are my big clinic day—and I saw a handful of patients who are having a tough time getting rid of their overgrowth. So I need something. I need it yesterday because that patient goes home, and they're still suffering. And I'm sitting here, and I know they're still suffering at home. I'm scouring the earth trying to figure out a better way for the patients who don't respond to the traditional stuff we're doing. So that's what we're working for.

**Shivan Sarna:** Yeah. So if you guys know anybody who wants to donate to the MAST Program online—if you can't find the website, that, I will help you find. If you can't find other studies and stuff, I am not Google. Go to PubMed. I mean that lovingly.

Okay. I wanted to ask you about somebody does an IBS SMART test, and they—how is it that they could have IBS but not SIBO? Can you explain that? We're getting a lot of questions about that refinement and that nuisance?

**Dr. Mark Pimentel:** The way I'm describing it lately—and maybe I described it to you like this before. But it's best to go back to ulcerative disease. Ulcers in the 1980s. You had a hundred people with an ulcer in their stomach.

And then, they found *H. pylori*. And they said, "Oh, *H. pylori* causes ulcers." Yes, *H. pylori* causes ulcers, but we didn't rename the disease to *H. pylori* disease.

*H. pylori* also causes cancer, but may not cause ulcers in those patients until the cancer forms. So, *H. pylori* can be seen in ulcers and in other diseases. But of the hundred patients with ulcers, only 70 have *H. pylori*. The other 30 are caused by Advil or NSAIDs or aspirin or whatever else that science has proven.

My point is... IBS is the same thing. IBS is this umbrella terminology of a condition that is defined by the FDA. SIBO is starting to be defined by the FDA in a way that drug trials can be developed. That's in the works.



But under IBS, 60% to 70% have SIBO. So, it's sort of like the H. pylori story. But the other part of the H. pylori story and SIBO story is that there's a bunch of other people that can have SIBO from adhesions and from pancreatic insufficiency, cirrhosis. And so we have to be mindful that SIBO is not just a California roll sushi with IBS. It can be caused or be present in other conditions as well.

**Shivan Sarna:** What do you see as the biggest underlying condition? And what do you suggest to people who are like, "Look, I did the IBS SMART test. It's not positive, but I still have SIBO. What should I do?"

**Dr. Mark Pimentel:** See, this is where the testing becomes important. People say, "Well, do I do the IBS SMART and do the breath test?" Well, think of it like you go to your cardiologist's office, they don't do an EKG. They do an EKG and an echo because the EKG shows you the heart rhythm. And the echo shows you the heart structure.

So, the antibodies tell you you have a dysregulation of motility potentially from food poisoning. And we talked about all the manifestations and why that's important. The breath test tells you what type of SIBO you have, whether it's methane or hydrogen, and guides therapy.

But if the antibodies are negative, and the breath test is positive, I'm more likely to investigate for adhesions or investigate for something else.

Again, see, it's guiding me in how I—I'm more likely to find what the patient's culprit is knowing these first two elements.

**Dr. Mark Pimentel:** But to answer your question, the first part of your question, I would say, adhesions are the most important cause. I had at least two patients in the past month where their doctor has been treating them over and over and over again for SIBO. And one of the patients had blockages in their bowel. They're doing great now... perfect!

**Shivan Sarna:** Wait, how did you test and how did you get rid of it?

**Dr. Mark Pimentel:** Well, you've got to do the barium study with a qualified, very, very good barium person, not just somebody who takes one picture. And that's what we do. And now they're fixed which is amazing. And I love when that happens because it's so rewarding for the patient.

**Shivan Sarna:** Okay. Well, how did you fix them? Because doesn't surgery...

**Dr. Mark Pimentel:** They were nearly obstructed, so they had to have surgery. Like I say, I see maybe two or three people a month that are like that. And that happens fairly routinely.

**Shivan Sarna:** So, I try to educate a lot of people about adhesions because it isn't the most talked about thing. And I have Larry Wurn in Clear Passage as a resource to send people to, visceral manipulation, the Upledger and Barral Institute techniques for massaging.

Do you have any other suggestions for people about adhesions if they aren't going to be going under the knife?

**Dr. Mark Pimentel:** Yeah, I mean adhesions can be handled when they're minor with manipulation, visceral manipulation. And so, I have used that. There are patients who—remember, one of the reasons that adhesions form is because they're tearing and repairing, tearing and repairing. My only concern with visceral manipulation—sorry, folks, for those who do that out there—is that we don't want them to tear and repair in a bigger type of adhesion. So, unless you're qualified... you know what you're doing, that's really my word of caution. That's all.

**Shivan Sarna:** Yup, Carlene, I'm talking to you when I'm going yes, yes, yes because we've had this conversation several times. It shouldn't hurt, this visceral manipulation in the belly. I've had it done. I've had it done improperly, and I've had it done properly. And it doesn't cause like inflammation and another adhesion-environment. It actually is quite gentle. You have to go to someone who knows what they're doing.

Okay. Anything else you want to tell us about the research?

**Dr. Mark Pimentel:** So much happened. So off the top of my head, I think we've covered a lot of it. I think you have questions for me, right?

**Shivan Sarna:** I do! Funny you should say that, Dr. Pimentel.

Okay, knowing that bloating is a hallmark symptom of SIBO, have you ever encountered a positive test for a patient without bloating?

**Dr. Mark Pimentel:** Oh, positive SIBO without bloating.

So, when we have hydrogen sulfide-producers—and this was in the trial—there are some patients where their diarrhea and bloating is at a minimum because the hydrogen



sulfide is creating so much purging that they're expelling the gas as well. So, we do see occasionally patients.

But again, you won't know that until hydrogen sulfide testing is available.

**Shivan Sarna:** Any timeline on that?

**Dr. Mark Pimentel:** You asked this already?

**Shivan Sarna:** I know! It's like a trick question.

**Dr. Mark Pimentel:** It is... it is...

**Shivan Sarna:** I saw that trap.

**Dr. Mark Pimentel:** Okay, fine. Yeah, I just thought maybe you were drifting.

Okay! "So, on the breath test, my baseline was 7 ppm." This is Denise. "And it had a rise of 8 ppm. So it was considered normal. I thought I heard you say that 2 ppm or less is what you want for methane. Should I be doing something to address the high numbers of methanogens in my microbiome if I treat the hydrogen-dominant SIBO?"

**Shivan Sarna:** So, in our early studies, if methane was over 3 ppm, we found that associated with constipation. So, to the person who asked the question, if you are constipated, and your methane rises to those levels of 8 or so, and you have the hydrogen, I would generally treated because of our early data of the 3 ppm threshold.

When the North American consensus was decided, it's not decided by me, it's not decided by, first off, Dr. Rezaei. It's decided by a collective group of minds. And the majority felt that 10 would be a better threshold for certainty. And so that's why 10 came about.

**Dr. Mark Pimentel:** So, we're all—I don't want to say *stuck* with 10. But until more data comes out, we're going to say it's 10 for the interpretation of the test. But the North American consensus—not to keep laboring this one question. But the North American consensus finally gave us guidelines so that—you know, all these doctors across the country doing breath tests, were just willy-nilly, in some instances, telling people what their test showed. We had to get like sort of a ground floor on things, get everybody on the same page, and then do science. And then, in a couple of years, modify it according to science. So that's it.

**Shivan Sarna:** Okay. Pregnancy and pelvic floor issues and adhesions, I just want to circle back to that because some people might be thinking, “Well, I've never had a blockage.” Could they still have adhesions? Would that be part of an adhesion scenario?

**Dr. Mark Pimentel:** So, pelvic floor dysfunction can be caused by blockages. There's a number of things that can happen.

If you've had, for example, a caesarian section for delivering, it's possible you can get adhesions from that. I had a patient—literally, it's funny, you mentioned that—I want to say six weeks ago. And this is exactly the scenario. “Ever since then, my bowels haven't worked right,” and it's adhesions.

I've had patients where they went to the ER when they were 13 for abdominal pain, never had any problems since. Now, they have bloating and distension. And it turns out they had appendicitis that healed. But now it formed scar tissue. And it wrapped around the ileum. And now, they're bloated and distended. We fixed it, they're fine.

So, all of these things are possible.

One final thing is endometriosis can cause scarring. And we do look for that. That's an important cause in young women especially when you are very heavy or you have irregular periods or pain with menstruation that's unusually elevated.

**Shivan Sarna:** So, this is about nerves. And we didn't really define exactly what the whole step by step process of like get food poisoning, what it does to the interstitial cells of Cajal and all that. Do you want to do that in a super fast way?

**Dr. Mark Pimentel:** Sure!

**Shivan Sarna:** No pressure.

**Dr. Mark Pimentel:** You're telling me to go faster.

**Shivan Sarna:** On this little thing.

**Dr. Mark Pimentel:** So yes, food poisoning, the toxin, CdtB, has a similarity to vinculin. They form antibodies. The antibodies react to all the nerve plexus of the gut—we showed that in a study—but specifically to the deep muscular plexus interstitial cells of



Cajal. That's a mouthful. And those cells are really important for the cleaning waves of the gut.

And we saw that those cells are diminished in people who got food poisoning and who developed SIBO.

So, less ICC cells, more SIBO. And that's the motility disruption.

**Shivan Sarna:** And the motility disruption has to do with the migrating motor complex. So I'm just giving you guys some terminology for new people.

**Dr. Mark Pimentel:** Right, right. But the higher the antibody, it could even damage other nerves. We're still working on that. We can't explain why some of these patients are so distended when their anti vinculin is so high. It can't just be MMCs. It's got to be even deeper than that and worse than that.

We're working through trying to figure out how bad things can get and how many nerves and what nerves are damaged.

**Shivan Sarna:** Is that what neuropathy means?

**Dr. Mark Pimentel:** Yeah, neuropathy, we call it *visceral neuropathy* or visceral myopathy when it gets so bad. It means that the bowel just doesn't function. The muscles don't react. And part of that has to do with the nerves. So yes...

**Shivan Sarna:** Okay... so Mary Anne, that addresses your question. Guys, there were so many questions. I'm trying to do these big sweeping questions to address a lot of people at the same time. And of course, it's not a substitute for a doctor's visit. I'm trying to do the best I can to cover big and little pictures.

Wendy: "I tested positive for hydrogen and methane, but have only methane symptoms. Do you have any idea why this is the case?"

I know that's kind of something we've covered before, but I think it's important for people who are just joining into this whole world of explanation from you.

**Dr. Mark Pimentel:** So, the explanation... the patient has no methane and has constipation, is that what they're saying?

**Shivan Sarna:** She tested positive for hydrogen and methane, but only has methane symptoms.

**Dr. Mark Pimentel:** Okay. So, in the study that we presented the last DDW—and this paper is coming out very shortly—we showed that methane is king (or queen I think). It dominates the environment. When methane is present, it doesn't matter how much hydrogen you have, you're going to be constipated. So, you kind of got to treat both.

**Dr. Mark Pimentel:** What we do with methane, of course, as most of you know, is we give—based on the double blind study we published, the combination of Rifaximin and neomycin or Rifaximin and metronidazole is a substitute that we use in the clinic (again, off-label use for the products. But they're usually successful in about 80% of cases).

But here's the problem that we're trying to find the solution to again. Methane is tough.

I mean the patients do relapse more easily. And that's why we're looking at this lovastatin option because we really struggle in that arena.

**Shivan Sarna:** Okay, let's talk about the vagus nerve because you and I haven't really talked a lot about that, that whole brain-gut connection.

By the way, I once said “mind-gut connection” and was crossly-corrected—not by you. So, it is the brain-gut connection, this vagal nerve, vagus nerve. Can you talk about that for a bit and just explain to people that relationship?

**Dr. Mark Pimentel:** Well, the irony of what you just said correcting yourself—and I would like to correct you again.

**Shivan Sarna:** Yeah, you do it.

**Dr. Mark Pimentel:** At this DDW, they've changed the terminology one more time. Now they're calling it the gut-brain connection because they think that it's bad communication from the gut that is affecting the brain, sort of like the bugs. Basically, they're suggesting that the microbiome can be causing depression and can be causing some of the neurological problems that people experience; Parkinson's and all that.

So, stay tuned for a lot more data there by other people who are doing it like John Klein in the UK.

But now I forgot your question. The vagus nerve is what you were thinking of, how important is that.



So, we measure vagal nerve function in the clinic. We have a test that we do. There's a number of tests you can do. But one of the ones we do is to do a pancreatic polypeptide after a sham feed. It's a test that tells—

I know... I got to explain it. So you give me a question, and then you expect me to do a short answer.

So basically, the vagus turns on once you sit at a table and you're looking at food. The vagus turns on more once you start chewing the food. And of course, it turns on a lot when you swallow it.

But if you just chew the food and spit it out, the vagus turns on and triggers the pancreas to release a chemical protein called pancreatic polypeptide which we can measure in the blood. So, if you chew and spit the food out, and you don't have a rise in pancreatic polypeptide, it means the vagus ain't connected. And the vagus isn't functioning.

And if the vagus is not functioning, that can be associated with SIBO and a lot of sort of dysfunction of the upper gut—actually, most of the gut because the vagus controls all the small bowel in parts.

**Shivan Sarna:** That is fascinating and totally worth every single word you just said as usual.

**Dr. Mark Pimentel:** We do this, like for example, people who've had surgery for reflux, like fundoplication. The vagus nerves can be damaged in some of those procedures. And so we do test the function in people who are very bloated or distended after the procedure.

**Shivan Sarna:** And what about like concussions?

**Dr. Mark Pimentel:** Yeah. So we do see some patients with concussions that develop SIBO. It's perplexing. Some of them do have that vagus dysregulation; some of them don't. But yeah, we do see it.

And usually, when you say concussion, what I'm thinking of is the patients in my clinic that have had a car accident. And then, all of a sudden, ever since then, they've been bloated. And so I do see a lot of those. And the explanation for it could be vagal dysfunction, it could be something in the brain that, in the vagal nucleus, that could be affecting gut function. It's possible.



**Shivan Sarna:** Like traumatic brain injuries that are appearing to be much more common than anyone had ever suspected.

**Dr. Mark Pimentel:** Yes, possible. We do see cases like that.

**Shivan Sarna:** Any thoughts about a hydrogen sulfide, yeast, Candida connection?

**Dr. Mark Pimentel:** So, the person who could answer that much better than me is Satish Rao who's studying yeast every day. And he's finding SIFO, small intestinal fungal overgrowth, in a small minority.

But look, 70 is caused by bacterial. There's another 30 to explain. And I think he's saying between 10% and 15% of IBS or SIBO might be fungal in nature.

In the ReImagined Study, we do collect information for fungus. We just haven't analyzed the data yet and done the libraries for fungus. But that will come. That'll come in the next 12 months.

**Shivan Sarna:** Ooh, that's exciting. That's great. And Dr. Rao is joining us in the speaker series in August.

**Dr. Mark Pimentel:** Oh, good. He's an expert on the fungus part, and you'll enjoy his commentary.

**Shivan Sarna:** Yeah, he's got a lot of ideas about the old fungus among this.

**Shivan Sarna:** “So, what about diverticulitis”—Teresa, this is for you—“in the large intestine affecting SIBO treatment and is more likely to be in the small intestine if you had—oh, is diverticulitis look more likely to be in the small intestine if you have it in the large intestine?”

**Dr. Mark Pimentel:** So if you have—if I understand the question—*diverticula*, meaning pockets in the colon, they're more common. In the small bowel, much less common. But there are patients who have small bowel diverticulosis. And I have one patient that I was treating for a number of years who, the entire small bowel were diverticula. It was a disaster for them.

And that is a well-known textbook kind of case where it's very difficult. They can't absorb food. They've got an overgrowth that never goes away because these pockets just keep holding the bugs.

But if you have diverticula in the colon, in general, that's very common. It doesn't really mean you have pockets in the small intestine.

If you get a barium study, it would be most likely you don't have it. I would say that diverticula in the small bowel, I can count on both hands the number of patients I've seen over the last 10 years—maybe five or ten. It's rare.

**Shivan Sarna:** So, people are asking about what to do to heal and what to heal first. Do you start with IBS-SMART test, and then adhesions? Do you have a checklist? Obviously, it's patient-specific. But any suggestions for people who have maybe had not their symptoms resolve after the famous sentence "I've tried everything"—which obviously, there's still something else to try.

**Dr. Mark Pimentel:** Again, so I'm putting the patient in front of me as the center of my universe of what I need to do. The highest probability is that it's food poisoning. So I start with the IBS-SMART because if it's positive, I'm almost done. Then I might do the breath test after that.

If the IBS-SMART is negative, breath test is positive, I'm looking for adhesions. If both are negative, the problem is we don't have hydrogen sulfide, so it could be hydrogen sulfide. Then they're in this pot of conundrum where we have to look for Celiac, look for things, maybe do an endoscopy. Even if somebody else has done an endoscopy, I might repeat it because there's something wrong with the analysis of that individual.

So, if you do that approach, you save a lot of co-pay for the patient because, number one, it's well-known in the medical literature, the sooner you get to diagnosis, the sooner you get treatment, the cheaper it is for the patient and for the insurance company—not that we're paying attention to insurance, but the patients pay tons out-of-pocket for all these stuff.

**Shivan Sarna:** One last question as we're wrapping up—and guys, we still have Dr. Siebecker who's going to be answering questions. I also know that there are a lot of you who are anxious to get your questions answered.

Dr. Pimentel, Heather recently read that the gallbladder has ICC's, interstitial cells of Cajal—I said it right. Are these the same ones as in the migrating motor complex? Do antibodies impair gallbladder motility also? Great question, Heather.

**Dr. Mark Pimentel:** It's an absolutely fantastic question that I have absolutely no answer to because I don't know.

But I do know is that the interstitial cells of Cajal, there are multiple types. The deep muscular plexus type of the small bowel are related to migrating motor complex. I have to go back to the textbook to see, but I think the gallbladder does not have the deep muscular plexus type. But they do have others. And so there are ICC cells.

It's possible that all of these neuropathy affects the gallbladder as well. We've always been suspicious that there's something because there's a link between IBS and a higher proportion of people with sphincter of Oddi dysfunction part of the gallbladder system.

So, the answer is yes, but we need more information possibly.

**Shivan Sarna:** So, that sphincter business you just talked about, is that like the release of the bile and all that?

**Dr. Mark Pimentel:** Yes. That's sort of the control latch that allows the bile to get into the bowel.

**Shivan Sarna:** And the ileocecal valve, all those valves?

**Dr. Mark Pimentel:** All the valves.

**Shivan Sarna:** All the valves, right.

Okay, I am wrapping you up on time as promised... always.

**Dr. Mark Pimentel:** Okay.

**Shivan Sarna:** I thank you so much for being here. Dr. Siebecker, come on. And we will talk to you soon with more breaking news, I know. I thank you for all your continued work. And success to you, sir. My prayers are with you.

**Dr. Mark Pimentel:** Thank you. Nice talking to everybody.

**Dr. Allison Siebecker:** Bye Mark.

**Dr. Mark Pimentel:** Bye Allison.

**Shivan Sarna:** Bye, Dr. P. Thank you!

**Dr. Mark Pimentel:** Good bye.

**Shivan Sarna:** Thank you so much.





## Q&A with Dr. Allison Siebecker

**Shivan Sarna:** What a treat?! What a treat, what a treat. What an honor to have him here with us, right, Dr. Siebecker?

**Dr. Allison Siebecker:** Oh, God, yeah. I wrote down a lot of questions of my own.

**Shivan Sarna:** I'm sure! And it's an honor to have you here. Yay! Chop liver, sister.

**Dr. Allison Siebecker:** I'm so thrilled to be here. And I love listening to that. It's so interesting! He's amazing.

**Shivan Sarna:** He's amazing. And what a soul, what a spirit.

Okay. So several things... I do like to run a tight ship, being on time. If you guys didn't start at the beginning, you weren't here right at noon, we did start right at noon with the good stuff. You may have heard us talking beforehand and thought, "Oh, my gosh! When did it start?" Don't worry, we were just doing some general things. And you will get a recording of it all, so you won't have missed anything.

We had so many questions as always. And so that's my kryptonite about not getting your questions answered. If you have ever noticed, I really do try. I usually have a good run rate of about 95% of the questions getting answered.

So, we're going to now turn things over to Dr. Allison Siebecker who is a world-renowned SIBO expert herself, also the creator of the SIBO Specific Food Guide, working on a book, working on a professional course certification. So if you are a professional who is looking to get a certification in SIBO, and looking to be trained by one of the best, then reach out to us at [SIBOSOS.com](https://SIBOSOS.com). I think there's a sign-up there. Most importantly, email Karen at [info@SIBOSOS.com](mailto:info@SIBOSOS.com).

And make sure you're on our mailing list. Actually, because you're here, you are. And we will, once this program is ready for release, be emailing about that.

In the meanwhile, save the dates... August 13<sup>th</sup> through the 21<sup>st</sup> for the 10-hour docuseries, oi, called *Digestion SOS: Rescue and Relief for IBS, SIBO and Leaky Gut*



which is the culmination of the work I've been doing for the past 2 ½ years about these conditions.

And I promise, you will be glad that you saved some time to watch that. Give up Netflix for a couple of days and watch it.

Okay! Dr. Siebecker, yay...

**Dr. Allison Siebecker:** Hi! I'd start with a few things that I wanted to mention from your discussion with Dr. Pimentel.

**Shivan Sarna:** Please do.

**Dr. Allison Siebecker:** Okay, I wrote them down because I was trying to remember.

First off, when you were talking about you wouldn't be the person to help someone find a study. And also, you asked Dr. Pimentel how to find the abstract from DDW that he just published. What I do is you can—there are two ways you can get them from what I offer, is that if you are signed up for my newsletter, I send a big quarterly newsletter obviously four times a year. And then, I do in between event updates, like you know, I just email everyone that we were doing this and things like that.

The big quarterly will be coming out at the end of this month, June. And in that, always, I put all the DDW abstract that are of note to SIBO and IBS. And I have a section at the bottom of the quarterly newsletter called *Hot Off the Press*. And it's all the most recent studies (obviously, the last three months of studies on SIBO). And so, it will be in there.

And why I do that is so each and every person doesn't have to go haunt this down by themselves. I'm already going to be doing the work for myself because I look at them all, so I share it with all of you.

So, you can find them in my newsletter. And then, I post them. Within about a month or so, I post them onto my website.

That's the second thing I wanted everybody to know. My website is SIBOInfo. That's how you sign up for my newsletter. Go to my website's welcome page.

But on that website, there's a tab called *Studies*. And it's right here. And so if you go to 2019, very soon, I will be posting all of the DDW abstract there. Like I said, I put them out first in my newsletter, and then I transfer most of it.





And if you're looking for any other kind of study on SIBO, pretty much every study that's pretty much ever been published on SIBO is listed on my website. So you don't have to search through PubMed and figure out all the search terms and everything like that.

That is why I do it, particularly for physicians or anyone who's interested. I've already collated it for you.

So, use the resources that I have for you. They're there, SIBOInfo. That's one thing.

The other thing is Dr. Pimentel mentioned when you asked him how to figure out if somebody has adhesions, he said you do the barium test, but you have to go to someone good.

Well, years ago, I observed with Dr. Pimentel for a couple of weeks. And he had two really excellent radiologists there at Cedar Sinai who could do a very good barium. So I asked the head of radiology there and I asked Dr. Pimentel—many of you have heard the story before, but for those of you who haven't—I asked them both how can I get my local radiologist (that's who performs the barium) to do as good of a job as we need.

**Dr. Allison Siebecker:** And from what they said, I put together this little saying. And then, myself and Dr. Sandberg-Lewis had been teaching that out to everyone. So I would recommend for practitioners that are listening, you write this on your order form (and for patients that are listening, you ask your doctor to write this on the order form), “rule out adhesions with multiple spot films and positional changes to visualize each segment of bowel.” And that will be on the recording, so you can take it down again.

But one other thing to not worry about offending the radiologist. Look, I don't know what everybody's ego is online. But I called my local radiologist center and asked the head there, “Am I going to get be pissing you all off? Am I going to get a bad name in the community if I start writing this?” And he said, “On the contrary, it helps us know what you're looking for. It helps us to do our job. We want you to communicate what you're looking for”—at least that's what I was told by my local guy. So there's that.

And the other thing is you were talking to him about what treatments there are for adhesions, and he talked about surgery, and then you talked about visceral manipulation. And he gave that very interesting piece of advice. Make sure you go to someone who really knows what they're doing with adhesions so they don't just tear them, and then they repair back up to a new adhesion.

Really, I've never talked to a visceral manipulation therapist about that. It'd be really interesting to hear what Larry Wurn would say about that. We should probably ask him.

But I wanted to let you know there are two other methods that have recently come to my attention within about the last four to five months ago. One is called *neural therapy*—*neural* like nerves. And Dr. Ilana Gurevich does it. And Shivan has had her speak. Her father is one of the heads who trains them. Actually, I'm just looking right now to find for you all—I may not be able to find it this minute.

**Shivan Sarna:** Dr. Gurevich, as in the father of Dr. Ilana Gurevich, is in New York. And we have him on our *Find a SIBO Doctor Guide* on [SIBOSOS.com](https://SIBOSOS.com). You can download it and find out.

**Dr. Allison Siebecker:** Ah, I found it. What I was looking for was where you can go if you want to learn to become trained in it or just find out more about it. NAANT.org; and then, also, [JeffHarrisND.com](https://JeffHarrisND.com). These are trainers that focus on how to do neural therapy.

And I won't explain it anymore because we're planning, Shivan and I are planning to bring—there's a lot of new therapies that I've been investigating during my hiatus for the treatment of SIBO. We're gathering them together. And we're going to share them with you all.

And then, lastly, *frequency-specific microcurrent* is another. If you just google that, you should be able to find your way. And there is a referral site. I think there is also for the neural therapy of doctors who have been trained in it. And Carol McMakin is the head of it and the trainer. Actually, she's here in Washington across our own border in Vancouver, Washington.

And she has a very successful case that talks about injury repair. It's quite a famous case that was publicized. You'll probably see that, of a famous football player who had a very severe injury and adhesion. And the case demonstrated the proof that it can dissolve those adhesions.

It can do a lot of other things as well.

So, I just wanted people to know there are some other techniques for adhesions. It's very, very widespread as a cause of SIBO.

**Shivan Sarna:** What was the name of the person in Washington?



**Dr. Allison Siebecker:** Carolyn—with a C—McMakin.

**Shivan Sarna:** Carolyn McMakin.

**Dr. Allison Siebecker:** You'll find her if you just google *frequency-specific microcurrent*. Apparently, there's microcurrent, and then there's frequency-specific microcurrent. So that is what they deal with.

So, I wanted people to know there's some other options that we've been figuring out now. Thankfully, all these other people, they already knew, the people who did these therapies, but we didn't know, we could use them for SIBO caused by adhesions.

And then, I think there was—let me see. There was one other thing that I wanted to tell you. No, I think that's it. I think that was it!

**Shivan Sarna:** Okay, great! Great, great, great. Dr. Siebecker gave you guys the first update on that. We are going to be doing something in 2020 about new treatments for SIBO. We're going to be revealing that.

So, there is hope. It's exciting to hear from Dr. Pimentel. And then we are going to put together a one-day summit, something really cool, where you'll be able to really hit the ground running with some of these new therapies—and then go educate your doctors.

**Shivan Sarna:** Anybody who's a practitioner that's here right now, thank you for putting out the effort to show up, to be there for your patients. We applaud you.

**Dr. Allison Siebecker:** Yeah. And I'm just like Dr. Pimentel and any other practitioners, SIBO, we don't have all the answers. It can be very tricky to treat unless you're the one-third that is easy to treat. But two-thirds are more difficult to treat. So I have just been searching for better options as a practitioner. And then, I want to share them all with you.

And actually, Shivan, there's one other thing I want to share that was from the research of DDW that was not Dr. Pimentel's, but something that was very exciting to me. And I didn't just—I re-read it right before I came on. So I'm just going to mention it vaguely. And it was something by Dr. Rao who Dr. Pimentel had just mentioned. He focuses a lot of time on fungal overgrowth and small intestinal fungal overgrowth.



Well, he had published a study a while ago that was kind of controversial about brain fog and SIBO associated with lactic acidosis and probiotics. And that's kind of why it became controversial (among other reasons). But he just put a new one out.

And what was very exciting to me was he actually correlated brain fog with SIBO. And he did a really good job of actually having a questionnaire and survey and figuring out exactly what aspects of brain fog—I don't have it open in front of me to read you. But he was able to find some symptoms of brain fog that were not something that people with SIBO have and others were. And I just thought that that was incredible.

Brain fog is a very common symptom of yeast or fungal overgrowth, Candida. And in fact, it's kind of the first thing at least naturopaths think of. When somebody is brain fogged, we think yeast or fungal. But it can exist with SIBO irregardless of that.

This was an amazing, amazing study to me, especially because this particular symptom of brain fog are related to SIBO. Oh, I just thought that was wonderful.

**Shivan Sarna:** That is very exciting.

**Dr. Allison Siebecker:** I guess why is because it validates. You say brain fog and most MD's will think you're crazy, "What are you even talking about?" For years, it was the same for leaky gut. I had MD's 10 years ago think I was insane. And then, I would say *increased intestinal permeability*, I would use the medical term, and they still didn't know what I was talking about.

And so, it's so wonderful to have validation and proof in a study.

**Shivan Sarna:** ...especially about something that's so intimate, so personal, so hard to describe, right? Those moments when you think you're losing it and all that jazz.

**Dr. Allison Siebecker:** Then again, I will put the link to that abstract in my newsletter that's coming out at the end of this month, the quarterly newsletter. I'll have that in there.

**Shivan Sarna:** Thank you, Dr. Siebecker. I appreciate that. I know we all do.

And guys, I did also just get an email from the CEO of IBS-SMART test. He said, "Be sure to share the link about how to get diagnosed for getting access to the test." And that is now in the chat. Everyone should be able to grab it.

But just go to [IBSSMART.com/getdiagnosed](https://IBSSMART.com/getdiagnosed).



So, if you're new, by the way, welcome. We're so glad that you're here. If you're a regular, thank you. This work has been so rewarding. And your testimonials mean so much to us. So please, always, feel free to send us an email, [info@SIBOSOS.com](mailto:info@SIBOSOS.com). And certainly type up any a-ha moments that you may have in the Q&A.

The other thing I just wanted to quickly say was, if you're in Canada, they are working on getting the IBS-SMART tests in Canada. So hang in there, okay? Hang in there, hang in there. It's coming probably sooner than you would imagine, but it's not there yet.

Okay! As soon as... I'm just trying to make sure...

Okay! Dr. Siebecker, are you ready for some questions?

**Dr. Allison Siebecker:** Yeah!

**Shivan Sarna:** Alrightee! First of all, anything about gallbladder, I'm going to ask Dr. Mona Morstein on Monday. She and I are doing a quick recording about that. So I just wanted you guys to know that.

**Dr. Allison Siebecker:** ...answering those questions than me. She's an expert in that, and I am not.

**Shivan Sarna:** I just thought I'd—you know things, she knows things... and it's a beautiful thing.

Okay, let's see... moving here... hold on! I have so many speakers that I decided to pull. I color-coded everything. So you just have to bear with me for a second.

Dr. Siebecker, how do you treat people with *suspected* hydrogen sulfide?

**Dr. Allison Siebecker:** So, the main treatment I like to use is bismuth. And that's what's in Pepto Bismol. But also, in Pepto Bismol is salicylic acid which is aspirin. That's an NSAID, and it can be damaging to the lining of the stomach. So I don't prefer to use Pepto Bismol.

**Dr. Allison Siebecker:** So the way that I had been doing it is with compounded bismuth. At first, I began with—it's a formula that Dr. Paul Anderson had created as an anti-biofilm, pharmaceutical grade formula. So it has other things in there. And I did have some success with that.



And then, I was able to get my local compounder to make just bismuth. Bismuth subnitrate is what they made. And that's what we see in the studies on hydrogen sulfide. There has been some studies on that. And that was working. And the study dose was 524 mg., four times a day.

And I actually finally found out why 524 instead of 525 at the SIBO Symposium when I was answering this question there with panel discussion with Dr. Rezaie and Dr. Pimentel. Dr. Rezaie said, "That's how bismuth was originally packaged. It was just came as 524." So that's why.

So that, it winds up being close to 2000 mg. a day.

And in the study, it was done for about a week. But I found, in working with patients, that was not long enough. We need to do it two to four weeks, probably more like four weeks.

But the other method I like to use is high dose oregano. And the product that I tend to use is by Biotics. And it's called *ABP*. I don't know what that stands for. But it's oregano.

And it's dry. It's in a tablet. It's not oil in a capsule.

When I compared the two, using those in patients, I found that the oil in the capsule tends to be a little bit more—not as well tolerated by some patients. Some patients tolerate any kind of oregano beautifully. And other patients, it's a bit caustic to the lining of their stomach and intestines. And it causes pain and irritation.

By the way, if that happens, then oregano is just not for you. But anyway, the dry tablet seems to be better tolerated.

So anyway, the potency or the dose would be five tablets, three times a day. So that's 15 tablets a day for 10 days. And then, for the next 20 days to make a month, three tablets, three times a day. And I've had very good success with that also in treating hydrogen sulfide.

Now, in both cases, I've had failures. But that is to be expected. Absolutely every treatment I give to anyone to anything has failures and successes. So that's just how it goes. We don't know if it will work for a person. We do a trial.

So, those are my top two strategies.

Previous to that, I have experimented with antibiotics because Dr. Pimentel all these many years ago, so long ago, had basically said, “Just treat the person, the patient, as if they have constipation versus diarrhea. Treat with antibiotics.” So if they had more diarrhea, you would treat with rifaximin. If they had constipation, it would be rifaximin plus either neomycin or metronidazole.

And in particular, the neomycin—it’s an aminoglycoside—has been shown to have effects with some bugs that produce hydrogen sulfide. So I do try that because most of the patients I’ve ever seen with hydrogen sulfide actually has constipation even though we just heard from Dr. Pimentel that diarrhea is correlated.

Anyway, I didn’t find that to work very well. That just wasn’t very effective in my experience. And so I don’t do that anymore with antibiotics. But studies show you can use antibiotics or antibiotics with bismuth. So, for that matter, you can use bismuth and oregano.

And lastly on this, you can get bismuth in some over-the-counter supplement formulations that don’t have the salicylic acid. One is by Thorne. I can’t remember the other brand. One is called like *pepti-something*. I can look it up if you want. But I don’t have it in my memory.

**Shivan Sarna:** You guys can look that up. There’s a Bismuth DMSA. And it caused terrible gastritis for Suzanne L. I don’t know what the DMSA...

**Dr. Allison Siebecker:** It could be the Paul Anderson formula. I don’t know if she got it from...

**Shivan Sarna:** Priority One?

**Dr. Allison Siebecker:** Oh, Priority One is the other one that has bismuth in it as an over-the-counter. I don’t know if she had a prescription or not.

Gosh, sorry to hear that bismuth caused you a problem. Bismuth is actually very soothing. And it’s actually used to calm down diarrhea, ulcers. So that’s an interesting response that she had. It could have been the DMSA. That’s anti-biofilm. And it could have let a lot of things out that then were very irritating and/or the bismuth was killing them when they were let out and then that was a die-off reaction. That’s just off the top of my head.

**Shivan Sarna:** She said yes, it was the DMSA.



Okay, we're going to keep going here. MotoG6Play is your name here on the webinar. "Is it correct that rifaximin targets ammonia-producing organisms as it's now a treatment option in the UK for hepatic encephalopathy, which can cause comatose state? It would seem entirely reasonable to me that brain fog could occur in a less extreme way in SIBO. I've been diagnosed with high methane, but also have high levels of arabinose in my urine, suggesting Candida. Is it possible to have both?" Yes. "And should they be treated at the same time or independently?"

**Dr. Allison Siebecker:** Both meaning...?

**Shivan Sarna:** I think meaning Candida and SIBO.

**Dr. Allison Siebecker:** Yes, there are studies that have shown that rifaximin decreases ammonia. And in my powerpoint lectures when I lecture on this, I actually have that study referenced right there. So yeah, it does bring ammonia down presumably because it's killing the bacteria that produce it.

And yes, it's absolutely possible to have SIBO and fungal overgrowth at the same time. In fact, the studies that Dr. Rao did showed there's a significant overlap.

And for some reason, in my mind, I've been meaning to go look back up his study. I can't remember if it was one-third or two-thirds had both. I cannot remember. So, you have to go back and look at the studies. We had two that had come out on that previously.

But anyways, it's very common. It's actually very common to have both.

**Shivan Sarna:** I want to say something really, really important. Recently, thanks to Dr. Siebecker and Dr. Messenger, I was introduced to Dr. Ami Kapadia. She did an interview...

**Dr. Allison Siebecker:** Dr. Kapadia is amazing!

**Shivan Sarna:** Amazing! We just did a masterclass on the SIFO, the small intestine fungal overgrowth, Candida issue. And I have to say, it was illuminating. I listened to—oh, now we're coming close to like 500 hours of SIBO discussions with incredible experts. And I just want to say that I'm now learning and thinking with this filter of it could be SIFO. And it's totally changed my perspective.



So, if you're like me beating your head up against the wall even with lots of great information, please, please, please find out about this. You can go to [SIBOSOS.com](https://SIBOSOS.com) and check that as a single class, or you can pick it up in the masterclass—or just go learn about it in any way you can as long as it's through an expert.

So, for those of us who have very hard cases, and if you've ever not resolved your symptoms even though you've done a treatment, and even though you get a negative breath test, please, please, please seriously consider this.

**Dr. Allison Siebecker:** I just read through the transcript of that call. I recommended you to have Ami. This is what happens. All my colleagues are amazing, I'm like, "Shivan, you have to have lunch. Shivan, you have to have lunch."

Anyway, I read through the transcripts... and I agree, it was incredible.

And you have had, I don't know, maybe three dedicated classes on yeast and Candida SIFO before. And this still had new information, like really good information.

**Shivan Sarna:** And actionable. And she's a great communicator. And she gave a bonus about her favorite supplements to deal with Candida. It was...

**Dr. Allison Siebecker:** She's also a functional medicine MD.

**Shivan Sarna:** And she's had mold poisoning.

I would say if you don't have an easy case of SIBO, and you still have a lot of questions, that was imperative, *imperative*, to listen to.

Thanks, Suzanne. Yes, get *The Fungus Among Us* class.

And then, also, parasites. I just want to throw that down, guys. If you don't know, if you're like—so many of these questions coming through, I see them. My heart goes out. Watch Anne Hill's class on parasites.

**Dr. Allison Siebecker:** And Shivan, what you keep saying is that nobody wants to think they have parasites or nobody wants to watch these classes or even learn about it. If you're a difficult case, a challenging case, you kind of have to get tested for that—you just have to. And then, you have to get tested with a really good method because the testing is very problematic.



And so, what most of our colleagues recommend is Parawellness with a GI-MAP. But you know, even if your GI-MAP is negative, your Parawellness could be positive.

**Shivan Sarna:** Do you treat SIBO and Candida at the same time?

**Dr. Allison Siebecker:** Right! So back to that.

I don't have a good answer for this because I'm learning from people like Anne Hill, Dr. Anne Hill, and Dr. Ami Kapadia, et cetera, that they do have a preferred order of treatment. And I want to study that a little bit more.

However, I will tell you that, in the past, I have treated them together. And sometimes, that goes fine. And sometimes, it doesn't because the die-off is too, too much.

The Candida can have worse die-off. And die-off, by the way, classic die-off is when you get sort of like a flu-like feeling. You just feel like you're coming down with something, and you feel sick. And it can be very, very bad. You know how you can feel so awful if you have like a flu or something like that. It can just incapacitate you. It could be that severe.

**Dr. Allison Siebecker:** But also, it could be a worsening of your very own symptoms. And it could even be like new GI symptoms. So if you're constipated, you might get diarrhea or something like that.

So, the fatigue and the ickiness, and just feeling crappy, brain fog, those are all big parts of die-off.

So, anyway, for some people, the die-off is too much when we do both. Yeast die-off is usually worse than bacterial. But I have treated people at the same time.

Yeast usually takes longer to treat actually than SIBO, believe it or not. What I mean is that it takes longer to get to a place where you're having some symptomatic relief.

SIBO, even if you still might have to keep going, usually, within the first round, something has gotten better, the first round of treatment.

So, you just have to keep that in mind. You probably have to stand your Candida treatment off after this.

**Shivan Sarna:** Okay, this is about prokinetics. And Dr. Siebecker did an incredible class, masterclass, on prokinetics. So again, go to SIBOSOS.com and you can find it

there. And I'm not just trying to get you to buy something or whatever. But I'm just saying this is a few minutes, and that's like an hour and a half with two hours of Q&A following it...

**Dr. Allison Siebecker:** ...all on prokinetics. That's why we bring these classes to people, is because you have questions.

**Shivan Sarna:** Yeah. And we go deep.

So, from Denise, Payton, Jane, Marie, and Gina: "Can you talk about the differences between motility agents"—she does this all in the class, by the way—"amitiza, LDN, prucalopride, LDE (low dose erythromycin)?"

And somebody was asking about like, oh, the little pink pills that are the erythromycin. They're kind of hard to get into the 50s because you have to cut them. It's hard. Just get a pill cutter. I sat there watching TV. I cut a whole bunch up and just filled my bottle with them. So it's definitely doable—and it's cheap too. That's a cheap drug depending on where you live.

So, do you want to take these on, Dr. Siebecker?

**Dr. Allison Siebecker:** Sure! And actually, on that, you can also get your low dose erythromycin compounded. The problem is it's just not covered on insurance when you do that. Usually, compounds are not covered on insurance.

But I had a lot of patients that were willing to pay for it because they didn't want to mess with cutting their pill or getting the pill cutter. They felt that they could afford it. So that's just an option for you.

But when you do that, always ask what fillers or base they're using because, sometimes, they use things you might not want your SIBO patients using like a prebiotic or something—just check—or like a fermentable sugar. So just ask what's in there.

So, all of those agents that were mentioned except amitiza are prokinetics with the caveat of LDN. LDN is not technically a prokinetic. But there are studies showing that it does work like that at times, in certain people. I mean, it doesn't mean to have the prokinetic effects in everyone. So it has—I don't know, I think about two-thirds of patients, it will work like that, and one-third, it won't.

So, just start with LDN. LDN is also anti-inflammatory. And there are some of my colleagues that think, really, in some of their patients, it is not having a prokinetic



effect—which could be true. But it's having more of an anti-inflammatory effect. And that's sort of taking care of things. Maybe they weren't having good motility in their small intestine because they were inflamed.

So, it's anti-inflammatory. It helps balance the immune system. So it's used in cases of autoimmunity. So if somebody has SIBO from food poisoning, this could be a good choice because it helps balance and heal autoimmunity.

It also can help with depression. If somebody is in a fine mood, it's not going to affect you strangely. If you are depressed, it can help that. And that's because what it's doing is it's increasing the production of our own natural opioids. And our own natural opioids have a lot of things they do, a lot of benefits. Obviously, they can help mood, but they can help motility, they're anti-inflammatory. They have a wide array of activities. So, that's how it works.

So, the thing with LDN is you want to start it at a low dose usually and ramp it up because it is common for people to get sleep disturbance. It could be vivid dreams. It could be insomnia or waking strangely, that sort of thing. And usually, that can be avoided if we start low and slowly ramp up.

So, we usually start anywhere between half to one milligram. And then, you bring it up to as high as 4.5 or 5 mg. That's the dose with constipation. That was figured out by Dr. Weinstock. And it's 2.5 if you have diarrhea.

And Shivan, do you want to say something about it because you love LDN?

**Shivan Sarna:** I do love LDN. And Dr. Weinstock is the one who convinced me to try it again after two rounds of having weird dreams. And once he explained to me that it was because my dopamine receptors were like working again, I was like, "Oh!" If you have weird dreams, and you don't know why, it's a little upsetting. It's like, "What's wrong with me," right. So, he explained that to me. And he explained that, over time, it should get better, and to try to take it in the morning...

**Shivan Sarna:** And so, guys, I used to have psoriasis covering my entire scalp. I don't know if you've ever had this. I hope you haven't. If you know anyone that has ever had this, it is insidious. It is absolutely an insidious set of circumstances. And LDN is the only thing that ever cleared it for me. And I had it starting in 1997 when my mother died. That start it. It just cleared like about, I don't know, three years ago.

So obviously, I'm a huge fan. And also, it did help my mood. And it actually transformed my life. So I'm a huge fan.

Obviously, there is a conference going on I think this weekend, Allison, of the LDN Research Trust. You can check that out online. I think they're having an online (virtual) and in-person conference. And I'm sure you can pick up a ticket there and watch it. It's worth it.

**Dr. Allison Siebecker:** They have whole conferences on LDN one to two times a year where they fill the docket with all the things it can be used for. It's almost endless because of the mechanism of our own natural opioids with things for cancer—I mean, it's just on and on and on.

**Shivan Sarna:** I just watched this bit of a documentary. I think it's called *A Little Pill* or something. And it's by a woman who was in a sci-fi show. I can't remember it right now. But she's talking about the method that has been used with—not LDN, now low dose naltrexone, but with naltrexone—for alcoholism. And I think it's called the *Sinclair Method*. That is worth looking into it. It's very controversial, but man, this a whole documentary about people that it helped in other life-changing circumstances.

“What is LDN?” Low dose naltrexone. So glad you are here. It doesn't need to be compounded. Yes, it is the best of the best I've ever made out of medicine in my life. It's not like overly crazy rifaximin without expensive insurance.

And also, there, in that LDN Research Trust website, tons of resources including doctors that will write you scripts for it. And that, I do. So it definitely—my gastro does prescribe it for me. But if you don't have one, they can hook you up with a doctor online that can prescribe it for you.

**Dr. Allison Siebecker:** Okay. So back to the prokinetic question, amitiza is I'll say *secretagogue*. But basically what it does is it increases the secretion of fluid into your large intestine through an active mechanism with active transport as opposed to an osmotic laxative which does it passively. It's like magnesium or vitamin C. If you take that, it's a large molecule. And to balance things out, water is drawn into the colon where that substance is sitting.

So, amitiza is basically an osmotic laxative. But it's not technically called that. It's a pro-secretory agent. That's what it's called, *pro-secretory agent*. So it is a laxative. It is not a prokinetic.

And the difference is, what their purpose is, what they're trying to do is that, like I said, it brings fluid or water into the large intestine to help flush out the large intestine to allow for a bowel movement. That's its point.

A prokinetic is not intending to make a bowel movement. That is not what its purpose is. It's to coordinate and amplify motility. And most often, prokinetics are active in the esophagus, stomach and small intestine, and not the large intestine.

Some have effects on the large intestine as well and may have the possibility of being able to produce a bowel movement. However, we use almost all prokinetics in low doses. And in low doses, it's much less likely to have an effect on the large intestine.

So, why this is really important to know is because a lot of doctors don't understand the pharmacological difference here. The mechanism of action differs. And they will give amitiza to their patients thinking they're giving a prokinetic. However, amitiza does not stimulate the migrating motor complex of the small intestine. So you have not done the job that we're seeking. We're seeking to stimulate the migrating motor complex of the small intestine.

And so, what does that mean for prucalopride, low dose erythromycin, low dose naltrexone. And then, on the natural side of things, Iberogast, ginger and all the ginger-containing prokinetics like MotilPro, Motility Activator. There's a new one that has the same ingredients as Motility Activator. I was just sent to the GI Motility Complex. MotilPro, SIBO MMC, Prokine, Bio.Me.Kinetic. Those are all the ginger-containing prokinetics.

And then, we've got Iberogast and ginger itself (1000 mg. at night before bed).

So, those are our prokinetics.

Before I finally leave this, I know they wanted to know something more about LDE and prucalopride. Prucalopride is also another one that I was very much thinking of taking when we've got food poisoning because it's been shown to be protective for nerves, so neuroprotective, and neurodegenerative. It can repair nerves and grow the nerves. It's astonishing.

So, I'd be hard pressed which one to choose. If I was going to choose between prucalopride and LDN when you know you've had SIBO from food poisoning. But I think I would lean towards prucalopride actually because that's directly healing nerves.





And also, that was just approved by the FDA for the United States in December. And it was made available in April. And because it's so new, a lot of insurance haven't added it to their formulary yet, or they're just about to make a decision whether they will. Perhaps they may not have coverage on it.

And also, even if they do have it available, a lot of them will make it a special medicine, special medication at first for some time until they find out what they want to do with it. And what that means is they'll usually have to prove we've tried other things and they failed before then they'll approve you the prucalopride.

So, just call your insurance company and find out what the regulations are. And we usually give that a half milligram for SIBO at night before bed. But you can use more because, in full dose, it can help with constipation.

And one last thing on this, is that people that have diarrhea can use prokinetics because they are meant to stimulate the small intestine without causing a bowel movement. And that is usually the case. They usually do not cause a bowel movement. And for that matter, people don't understand that they're not to cause a bowel movement, and they'll say, "My prokinetic isn't working because it's not giving me a bowel movement." It's not supposed to. It's not a laxative. It's not doing that. But anyway, it's good to try that.

And if any prokinetic happens to give somebody diarrhea, then either you can lower the dose, or it's just not for you. You move on to the next one.

**Shivan Sarna:** We have Suzanne who said, "Be sure to tell Dr. Siebecker that she was in a webinar with Dr. Anderson stating that you should not use BioSolve PA with patients with gastritis." Okay!

**Dr. Allison Siebecker:** Yeah, that's very... I said that or Dr. Anderson said that?

**Shivan Sarna:** Dr. Anderson said that. And Suzanne wanted to make sure you knew.

**Dr. Allison Siebecker:** Oh! Oh, I'm very glad to hear that because there was a person that said that they were aggravated. And it's so interesting because bismuth...

**Shivan Sarna:** That was her... that was her...

**Dr. Allison Siebecker:** Oh, it's so interesting because bismuth has actually been a treatment for gastritis. So I wonder if it's the DMSA. It was DMSA that was in her...





**Shivan Sarna:** Yeah.

**Dr. Allison Siebecker:** I wonder if it's that. Well, I'm going to have to find out. So thanks for letting me know.

**Shivan Sarna:** Okay! Okay. You guys, somebody is asking about the low FODMAP diet. I just want to say if you're really confused about diet, there's a diet masterclass. By the way, we have a 4-pack of the masterclasses that Dr. Siebecker has done that are on sale. That is the *Diet, Prokinetics, Underlying Causes, Treatment & Prevention*. Yay! So that is like a whole SIBO information conference basically wrapped up. And that diet masterclass was five hours long. I mean, we went on and on. So please do check that out at [SIBOSOS.com](https://SIBOSOS.com) as well.

I guess what I want to do right now is just kind of change it up a little bit and do talk about the diet because there's a lot of people that are new here, Dr. Siebecker...

**Dr. Allison Siebecker:** Welcome!

**Shivan Sarna:** Can you just touch on low FODMAP—let's see, from Fonda, "...such as FODMAP. How can diet help SIBO? Interested for that reason in addition to information on new developments on herbal treatments versus antibiotics for SIBO."

So that's a two-parter. But let's talk about diet for a few minutes.

**Dr. Allison Siebecker:** Okay, so how can diet help SIBO. The main way that it seems to be able to help is by reducing symptoms. It's a symptom-reliever. And it's a lifesaver at that.

I have not ever seen it cure SIBO.

**Dr. Allison Siebecker:** The theoretical way I can imagine is that somebody was in the one-third—and if you don't know what I mean by one-third/two-thirds, some of Dr. Pimentel's large-scale studies on a lot of patients have shown that about one-third of SIBO cases are non-relapsing, meaning you give them a treatment (usually, one, but it could be a few rounds of treatments, meaning antibiotics, pharmaceutical or natural, or the elemental diet), and then they are better. And they never relapse. They're at their best, they're done.

And two-thirds of cases are going to relapse.



So, if a person is going to be in that one-third, then maybe diet would be enough to just take down the aggravation and allow some things to heal because these diets are anti-inflammatory. Now you're not giving the bacteria the food, which are carbohydrates, that it will turn into the gas, and then the gas is causing all those symptoms. So it calms things down. And then, maybe things righted themselves.

I could theoretically imagine it. But I haven't seen it myself.

So, we don't use it as a main treatment. We use it along with the anti-bacterial treatments. Symptomatic relief is its main thing.

But I think it could also help decrease die-off. You can help reduce the bacterial load a little bit at least. And that can help with die-off. And I also think it just sort of assists the whole process.

You know, we haven't tested that theory very well. But some of my colleagues are working on that right now to see patients with some kind of SIBO diet as well as the antibiotics, antibacterials do better versus if you had no diet at all. I would suspect that would be the case. It just seems to *help* support the whole thing.

Yeah, did you want me to talk about low FODMAP in particular?

**Shivan Sarna:** Let's talk about the SIBO Specific Food Guide. Let's do that instead because it sort of covers every day.

**Dr. Allison Siebecker:** Yeah, I can just mention the main diets. And of course, you can see all these on my website right under *Treatment* and *Diet*. They're listed there.

But the SIBO Specific Food Guide is what I created. It's a combination of the low FODMAP diet and the specific carbohydrate diet. So those are two other diets we can use.

Then a variant of SCD is GAPS. [Back then, we used this. It's a little tricky]. We do have to do a bit more modifications with that like, for instance, you recommend a lot of onions and garlic right in the very beginning. And those are high FODMAP. They can be very aggravating for people. And avocado, there's a lot of that.

But if you know that, you just adapt to it.



And then, there's Dr. Pimentel Low Fermentation Cedar Sinai diet. And then, there's the Fast Tract for IBS Diet. That's by Dr. Robillard.

So, those are the main ones. Some people use Autoimmune Paleo as well. But again, you have to do a lot of adaptation.

Oh, I'm so sorry. Of course, Dr. Nirala Jacobi took my SIBO Specific Food Diet and put it into the phases. And then, she calls the SIBO Biphasic Diet. It's in three phases that are pretty much meant to be done alone with herbal antibiotics. So she just did that.

Now, what she did do recently which was fabulous, a year ago, she came out with a low histamine version. And she and Heidi Turner worked on that. And I was involved in that. I had a couple of long sessions with them to help make it be low histamine.

And then, there was the vegetarian version she just came out with. So those are some new versions which is wonderful.

So basically, what all of the diets are trying to do is lower the carbohydrate load because that's what creates the symptoms. It feeds the bacteria. They turn it into gas. The gas causes the symptoms. So, there are some other pathophysiologies, but that's the main one.

So, typically, we'll see symptoms calm down. With the SIBO Specific Food Guide, it's the most restrictive on carbohydrates. And because of that, it is the one that gives the best symptomatic relief. And so we will often see—I find, on average, about 70%. But really, with the SIBO Specific Food Guide, we can as high as 90% symptomatic relief.

The problem with that is all the restrictions which is unpleasant. It causes people a lot of unhappiness. They might not be able to have all these foods that they love. And it can cause weight loss as well.

Now, all of that can be avoided, particularly if you work with a nutritionist who can give you advice on how to keep your calories correct and how to get you flavors and everything that you like. But there's no doubt about it, these are restrictive diets. And so they have that downside to them.

And then, we can make people—there's already anxiety in SIBO that SIBO causes. And so then, you couple that anxiety with that restriction, and then people can get very over-focused on restricting of the diet. It's understandable because food has given them food symptoms. And so they have become afraid of food. And so they can get very strict



and very restrictive. And what I often find is patients restrict more than they need to because they're so desperate to have their symptoms controlled.

**Dr. Allison Siebecker:** And what's very important is to limit the restriction to a certain period, usually four to six weeks. And then, begin testing foods into your diet to find out whether you really can tolerate them or not because everybody is vastly different in what they can tolerate.

It's one of the most frustrating for patients and for doctors because I can't just say, "Don't eat this one food." Like I just mentioned, avocados, onions and garlic. I have SIBO patients that have no problem with any of those at all. And so they wouldn't need to modify. I'm really not kidding. I have *lots* of SIBO patients that can tolerate garlic, onions and avocados; and then tons of others that's the worst possible symptoms.

So, what you do is you just go on one of these diets. But know that you're just doing that for a brief period. That's why Nirala made her phases, because she's trying to force that: "Only for so long on this. Now, let's move to a more expanded version, and a more expanded version." So then you try foods. You might be surprised by the foods you can tolerate.

And one other thing that's very important to know is that the amount matters. The portion size matters. So a small amount of something might be fine; in a large amount, might not. So maybe you can have a small amount, like let's say a fourth of an onion cooked into a dish that your whole family is eating. So you having a portion of it might be okay—might not, but it might be. But you couldn't eat a whole onion, something like that

**Shivan Sarna:** Okay...

**Dr. Allison Siebecker:** That's my little overview on everything. You can find all of these information on my website. My SIBO Specific Food guide is a free PDF that you can download there.

**Shivan Sarna:** Very good! And also, the treatment for methane, the treatment for hydrogen, like the antibiotics and the herbals, they're all listed there under *Treatments* too. So I'm not going to take time now to do that because you probably going to want to go there anyway. And it's free.

**Dr. Allison Siebecker:** They just go to *Treatment: Diet, Treatment: Antibiotics, Treatment: Herbal Antibiotics*. It's all right there.



**Shivan Sarna:** That's what I did. I took screenshots, took them to one of my doctors.

**Dr. Allison Siebecker:** That person who had a question about also like antibiotics versus herbs. I see no difference in efficacy. It's really a personal choice. Or it depends on the history. Maybe a person can't take one versus another. There is not too much new—like she has *new* developments. We don't particularly have any brand new strategies, except for maybe the things I'm telling you like hydrogen sulfide. But it's all pretty much the same.

Like methane, it's the same stuff we've had for years and years and years, which is you add Alimed or Atrantil to the other herbal antibiotics for the methane.

**Shivan Sarna:** So, a couple of things about—I'm going to just back up to the diet, and then we're going to leave diet. And then, I'm going to go right back to the antibiotics.

Desmond: "Are there new developments on dietary guidelines for different types of SIBO, hydrogen versus methane versus hydrogen sulfide?"

**Dr. Allison Siebecker:** I say no. Now, there has been information that has been out for a long time about methane that Dr. Pimentel and his team came out with, that it might be good to reduce fats. But clinically, I haven't seen that pan out at all myself. So, I don't particularly do that.

I mean, I think it depends. If somebody was doing a massive, massive amount of fat, that would be different (for methane). So possibly, possibly a Ketogenic diet with very, very high fat might not be the best match for methane based on Dr. Pimentel's research. But I have not tested that clinically because I haven't used the Ketogenic diet.

You know, everybody always asks. And it's like it seems like it could be good. But I haven't tried it in my patients.

And Shivan and I have been talking about this. One of my dear friends was the main author on this, Nora Gedgudas. So we've talked about bringing her on and having a talk about it. But I came to believe from my experience.

Hydrogen sulfide, there are studies about reducing sulfur, like a lower sulfur diet. And I have had patients that has helped a little bit to reduce some sulfur.

There are some other studies about fats and about meat that are controversial. So when you read into the study, it's not obvious or clear. It seems like it is on a quick look. And then, you read them, and it's like, "Ummm... actually..."

But you can always just try a general low sulfur diet for hydrogen sulfide. I mean that just generally makes sense.

**Dr. Allison Siebecker:** And there's one other thing I wanted to mention about this. Oh, Dr. Rhobar just gave a lecture at the SIBO Con, the Integrative SIBO Conference. We have two whole SIBO conferences every year—the SIBO Symposium and SIBO Conference (SIBO Con).

Anyway, they were both these Spring. And he did a lecture saying he had a patient with hydrogen sulfide SIBO who was eating an excessive amount of eggs. I think like a dozen or more a day.

**Shivan Sarna:** Oh, eggs, did you say?

**Dr. Allison Siebecker:** ...of eggs. And eggs have fat, and they have sulfur. And he found a pathway within which he saw that that was not such a good idea. She decreased her eggs and got significantly better.

However, that's a very unusual case. It's not that many people that are eating that amount of eggs a day. I mean, I suppose there are diets where you would. So that's one other thing I would say. I think two to three eggs a day I don't believe would be an issue. It's with the excessive amount of eggs with hydrogen sulfide.

So, I know that Dr. Jacobi has been teaching a dietary regimen for hydrogen sulfide. She has some cases where they worked. But I had done those very things with my hydrogen sulfide patients, and not had it work. So I am not a proponent of anything other than just generally reducing sulfide because I just have contradicting patient experience from some other docs.

**Shivan Sarna:** Okay, Shawnie, go to Dr. Siebecker's website, [SIBOInfo.com](http://SIBOInfo.com) for the answer to your question about methane-dominant SIBO from a breath test. I'm not trying to blow you off. You're just going to be so much happier if you go there and can see it all laid out.

So, people are asking about—I just want to wrap up the prokinetics—about taking prokinetics before they try other treatments? Is there any harm to that?



**Dr. Allison Siebecker:** No... uh-uh...

**Shivan Sarna:** Great!

**Dr. Allison Siebecker:** No harm in there. Try it! There are tons of things you can do before going on to the antibacterials. And you should! You should try many things before you do the antibacterials because what if they worked, and then you didn't have to do that—except rifaximin does not harm the microbiome. We always have to put that in there because it really doesn't. It actually increases Bifidus and Lactobacillus in the large intestine.

But other than that, all the other ones have the possibility of disturbance.

**Shivan Sarna:** From Dorothy, she's having trouble with the elemental diet: "Stomach, heartburn and cramping, flare-up of weird bacteria, sulfur smell which I do not usually have, almost diarrhea (I'm usually constipated). Is this common? I very soon had to switch to the hybrid elemental diet from Dr. Ruscio. I had a similar reaction to the elemental diet last year. Should I give up on it or just try only botanical antimicrobials?"

Well, of course, that is a doctor's appointment question. But we will ask Dr. Siebecker just to give her guideline thought pattern on this...

**Dr. Allison Siebecker:** I think having difficult reactions to the elemental diet is common, particularly the diarrhea. It's very common for people to get diarrhea. It's also very common for people to get constipated. Bowel changes and bowel irregularities are very normal on the elemental diet.

Pain like that is not acceptable. She said she had acid gastritis-type pain. Is that what she said she had?

**Shivan Sarna:** I lost it, sorry guys.

**Dr. Allison Siebecker:** I thought I heard that. That, no. We don't want that going on.

Sulfur smell, yes. Weird smells are normal. Weird texture and colors of their stool are normal in the elemental diet. So, that's all acceptable. But if she was having a real stomach pain type of thing, no, we're not going to go on with that. It just might not be the right match for her. She's had it with every version that she's tried of it. And in that case, yeah, consider it either herbal antibiotics or pharmaceutical antibiotics. Those are two of the three main killing regimens that we have.



**Shivan Sarna:** So, I'm answering a question from Christine M. It's a big, long question, so I'm just going to help wrap it up, Christine, because this is another question someone else has. And that is she's just finished the elemental diet. She's gone on semi-elemental, reintroduction. Still extremely bloated. Good clearing of brain fog. But she has gained a lot of weight and distension.

**Dr. Allison Siebecker:** On elemental?

**Shivan Sarna:** Elemental and...

**Dr. Allison Siebecker:** Semi...?

**Shivan Sarna:** And herbals, yeah. And herbals. Have you re-tested, Christine? Have you re-tested? That is my big question for you.

Can we just talk about weight gain and SIBO for a second, Dr. Siebecker.

**Dr. Allison Siebecker:** Yeah. So again, most of this comes from Dr. Pimentel's research, that have correlated weight gain with methane because of that thing of how they sequester fat and this sort of thing.

**Dr. Allison Siebecker:** But I will have to say that it is not common. It's a very small proportion of SIBO patients. What is much more common is weight loss. There's many reasons actually, but SIBO causes malabsorption. Also, people go on more restrictive diets.

And then, sometimes, the symptoms cause weight loss like excessive diarrhea or nausea so that you can't eat. So there are a lot of reasons.

But weight gain, it does happen for some people. And I would say—before you comment, Shivan. I would say it's more likely to happen with methane.

And second, oftentimes, there's hormonal dysregulation that can cause SIBO or that can [occur with] SIBO. And often, it has to do with hormonal dysregulation, the weight gain.

Go ahead, Shivan.

**Shivan Sarna:** Guys, when you give me too much context—I know that sounds crazy because it's not a doctor's appointment—I tend to get lost in it because I'm trying to



translate it. She lost 3.8 lbs. She's not gaining weight, but her distension is huge. She's like really out there. There you go!

**Dr. Allison Siebecker:** And that was from the elemental diet, the weight gain?

**Shivan Sarna:** I think that's basically what it is. Go ahead and correct. Got it! Great.

**Dr. Allison Siebecker:** Okay, okay. That's very common. So, I would say bloating or distension, we often use those two terms interchangeably. By the way, technically, I should be using *distension*, but I use *bloating* because most everybody have their patient know that term better.

It's probably the most common die-off symptom that there is. That's probably number one. And I don't really understand why. But usually, these things subside either very soon after the elemental diet or usually within a month following the elemental diet.

It's a very good idea to make sure you're right back on your prokinetic. As soon as you stop your elemental diet. And you may need to add a second one or increase the dose to help calm the bloating down.

There are some people after the elemental diet, it really does take a good month after for everything to shake out and come back to normal, including bowel movements and all that. Things have just been disrupted. So make sure you're on your prokinetic.

**Shivan Sarna:** Okay. I found some more diet questions here.

Taylor: "What about water? Some people drink water. It causes so much more bloating and acid reflux. Water seems to be worse than drinking other beverages and even food." Taylor doesn't think it's a volume issue. I know you and I have touched on this in conversations in the past.

**Dr. Allison Siebecker:** Yeah, yeah. I've seen this. Yup, I've absolutely seen that where water just causes terrible distension.

You know, there's a study that showed water could turn off the migrating motor complex. So Kiran Krishnan (who you've interviewed), recommends not taking water in the morning, having sort of like a little fasting period in the morning. I think you could take your meds, you barely take enough water or something like that. I can't remember. But he sort of caught onto this and said he's had some success with it.



Dr. Pimentel says he disagrees with that. And he thinks if you drink a ton of water, yeah. But if you're just like sipping water, then that's not turning the migrating motor complex off.

However, I just want to say I've absolutely seen this where water can cause trouble and acid reflux. I've seen that. And I don't have a full explanation for it, not really. I mean I can make some guesses. But I would imagine (and in patients that I've seen), as you treat the SIBO more, and you get it lower, this does get better.

Prokinetics is, again, what I would recommend.

**Shivan Sarna:** From Marg: "Do you see any research about gluten and SIBO?"

**Dr. Allison Siebecker:** I can't think of—there could be, and I just can't think of it right now. But the main thing that I have seen is Celiac and SIBO, there's a good overlap there, meaning that people can have both. And there's a lot of thinking about which one comes first and how do they interact.

Basically, either one sort of could've been found first. And they both have a lot of inflammation.

So, non-Celiac gluten sensitivity, I'm just trying to think if I've seen anything on that. There's nothing coming to my head. There well could be, and I just can't remember at the moment.

**Shivan Sarna:** Wendy, she just addressed your question about FODMAPs working for some people and not others, food specific.

Just talking about grains in general—that's another Wendy question—she eliminated grains except for rice. Her thyroid antibodies have all but disappeared. "Do you think there's a link between this apparent cause and my autoimmune disorder and SIBO? And could continue on a minimal grain diet could eliminate SIBO?"

**Dr. Allison Siebecker:** You know, we've seen that thyroid issues and SIBO are absolutely related. And there are theories to show both ways. There's theories to show SIBO could dysregulate the thyroid; and there's definitely theories showing that the thyroid dysregulation could lead to SIBO.

It's fantastic that, basically, a grain-free diet other than rice normalized her thyroid antibodies. That's fantastic. So I think she should continue that, which she was probably planning to do anyway for her thyroid. But will it get rid of SIBO?

Well, if the thyroid dysregulation in her case was causing SIBO, maybe. Maybe it could. I mean, I think Gary Weiner presented some cases on it. You had him do a whole masterclass just on thyroid and SIBO. That was about a year ago. It was phenomenal. Again, I said he had to come on and do that. And he spoke at our SIBO Symposium about it. And he's seen it go both ways.

I think he had seen cases where you normalize the thyroid and the SIBO clears. So that would be—because it gets to the underlying cause, right?

Now, there are some cases where you clear the underlying cause, but the body still needs the extra push or help of taking an antibacterial in whatever form—herbal pharmaceutical or the elemental diet—just to clear that excessive bacteria. You just have to keep that in mind.

But I wouldn't necessarily rush to it. Maybe give it a little bit of time if you're not suffering terribly with the SIBO to see if it normalizes.

**Shivan Sarna:** Okay. I'm just going to do something I don't usually do so people can get their answers. Malory, the answer to your question is yes. And Louise: "Hi, I would like to know your thoughts about the diet that should accompany the antibiotic treatment when a SIBO is already diagnosed with a positive breath test? Is it essential to go through a diet low in fermentable carbs and FODMAPs in a second phase starting antibiotics?" I don't think English is his first language. So I'm doing my best. "Or do you recommend starting antibiotic treatment directly together with the diet?"

This is a question we get a lot, right?

**Dr. Allison Siebecker:** Yes. And I'm going to give you an answer that will frustrate you... which means we can do it anyway. There is no one, right way.

So, in that case, what I would be doing is I would be talking with this person and asking questions about them individually, their diet, the whole SIBO situation. And then, we would choose the path forward.

But I guess the good news to this is there's really no wrong way to do it because there's no one right way to do it. So any of the options you choose are acceptable.

So, sorry to be so wishy-washy. But basically, diet is a tool. And like any tool, you decide in which way you want to use it.

So, I guess one thing I can say here is that if a person is not suffering terribly—the main reason we want to bring the diet in is because it's pretty much the best symptomatic reliever we have. So if you're not suffering terribly, and you can wait a little bit, you can trial your antimicrobial treatment, your antibacterial treatment first because that's meant to bring the SIBO down. And then you wouldn't need diet as much. Maybe you can try that first in this scenario. And then you still go on a diet, but it doesn't need to be as restrictive—or something like that.

If somebody is suffering, we want to bring diet right in because we've got to get them some relief. I mean it's just unbearable in many cases.

Dr. Pimentel likes to recommend not going very low fermentable when you're doing pharmaceutical antibiotics because he thinks they work better when the bugs have a little something to feed them. I think that's okay if a person is not suffering terribly. But if a person has been suffering, and now they're already on a very restrictive diet—like 5 foods, 8 to 10 foods—and going off that even a little bit returns awful symptoms to them, then do not go off that. That's my recommendation.

We've treated so many patients like that and had some success. You don't have to go off of a low fermentable diet to have success with antibiotics no matter what form they are.

Lastly, when you're using herbal antibiotics, their course of treatment is longer. So one month of herbals equals two weeks of pharmaceuticals. And often, we'll do six weeks of herbals. And if someone is having bad symptoms, we don't want to wait four to six weeks. So we will start the diet.

**Shivan Sarna:** Okay. We're going to start wrapping up with Dr. Siebecker. Lorraine, your question was already answered. And Iver, your question was answered. I know you've submitted a lot of them, Iver. This one is about the sulfur.

Okay, this is from Martina: "Some doctors say the brush border heals by itself when SIBO is cleared. In Dr. Siebecker's article in the Townsend Letter 2015, you said that brush border healing supplements may be given. So I'm wondering is it important to support the brush border after SIBO/SIFO with, for example, L-glutamine, NAC, zinc



carnosine, curcumin, resveratrol, et cetera? And if so, which are the two most crucial ones that you recommend?”

**Dr. Allison Siebecker:** I don't really know the answer to this because I haven't done a lot of before-and-after testing with patients on leaky gut. Often, what I've done is just test and find out if they have leaky gut. But I haven't the repeat test to prove that whatever I was using worked. So I'm not the best to know for sure.

But again, I just have to give you the two sides of the argument as to use them or not use them. On the one hand, we have the studies that show with SIBO—when patients have leaky gut, we have two studies that show that when they had SIBO and leaky gut, they were given antibiotics, and their SIBO was cleared, then they re-tested them for leaky gut one month later, in one study, 100% of them were healed. And in the other study, it was like 70% or 80%, something like that, were healed.

So, that would be an argument for saying, “if you remove the cause, you don't need to do anything because it's been healed.

We know that the gut lining has a very high turnover rate or a very high healing rate. It's kind of like the skin. If you get a cut, it will heal. If you remove the cause of the damage, what's causing the damage, it should heal without doing anything else.

Now, I guess another thing would be, well, did you get all the causes? Is there anything else there? Do they have something else?

Now, on the other side, if you have a cut on our skin, and we put aloe on it, it'll heal faster. So an argument could be made, “Yeah, get some of these things because it'll go faster.”

I don't know how many of you when you get a cut, do you choose to put aloe or not. I often put a little something on it. I don't know, I just assist. So that could be a reason to do it.

Now, going back to the other argument, I often don't. And the reason I don't is because I see challenging patients who struggled for a very long time to get well. And we've worked often a long time to get their tests negative and their symptoms good. And so I practice “don't rock the boat” with these types of patients.

I used to give leaky gut healers because that was in my training. And I caused problems. These people are so sensitive. And it's so like, “Ooh, we just got them good, I don't like rocking that boat.”

But if you are not a person like that, I think there's no issue with it.

And I've seen those things do well on some people, but it's when they're really in a much more healed state. For my patient population, I wouldn't want to do them until later because it's like I need to skip them. I have to observe them being stable for a while in case they're going to go back. But that's because of the type of patient I see.

Now, as to the question of what are the most important, again, I can't say I know because I haven't tested before-and-after to prove the results anything and really see with people.

There is one that's sort of new that I am quite favorable towards. And in my early days here, I would say it's my favorite right now. And that's IgG. So it's serum bovine IgG. And for vegetarians, there is one by NewMedica. It's their colostrum. It just happens to have a lot of IgG in it. I can't remember the exact name of it. It's on my SIBO Symptomatic Relief Suggestions Handout which you can get on my website under *Resources >> Handouts*.

And a lot of companies sell them. It's Enterogam. Dr. Ruscio has it as *Intestinal Repair Formulas*. Microbiome Labs has it as *Mega IgG*. And there's a lot of other ones. They're all listed on my handout there.

And I think it's incredible. It has a lot of good research for healing leaky gut. It is found in colostrum, but most colostrums don't have it as high of an amount. Theirs is just purified. And that NewMedica one happens to have a very high amount.

**Dr. Allison Siebecker:** And colostrum has one other thing in it that I've always been in favor of. It has *epithelial growth factors*, which you can't get, to my knowledge, from a non-animal source. So I always thought that was amazing.

But I have to say I always give colostrum to all of my patients, and I was not getting the kind of feedback that I've heard from IgG. And I'm not seeing patients right now, but I've tried it. And a lot of my colleagues are taking it. And the feedback to me is superior than actually colostrum which is surprising.

Anyway, you can look more into that.

Dr. Ruscio, if you go to his *Intestinal Repair Formula* page, he's got all of the studies that show how it affect leaky gut and heals it and all the things it can do for the gut. I would choose one right now. And I would say that now.

**Shivan Sarna:** Okay. I'm going to wrap up with you, with Dr. Siebecker, with bloating.

If they've cleared SIBO, cleared parasites, reduced heavy metal, supported the adrenals, gave their nutrients back to their body, removed inflammatory food, use digestive support, lowered stress, getting enough sleep, yet the bloating does not go down, what other factors are to be considered?

**Dr. Allison Siebecker:** You know, it's interesting hearing Dr. Pimentel talk today. I wonder if this person has had the IBS-SMART test because Dr. Pimentel was saying if the anti vinculin antibody is high, that really indicates nerve damage, and it also correlates with very bad distension, very bad bloating.

So, I think that would be a good thing to do, to take that test if it's available wherever this person lives.

And then, in general, think about nerve damage and some things you can do to help with nerves and be like—well, frequency-specific microcurrent might be able to help. Acetyl L-carnitine, Dr. Mona Morstein uses that. I'm a high proponent for diabetic neuropathy. It helps with nerve healing.

Lion's mane mushroom, both myself and Mona have talked about that for years. Also, it can help regenerate nerves.

Prucalopride, prokinetic. Prucalopride would symptomatically possibly be able to help with bloating.

And lastly, I don't think I heard on their list hormone. That's something I would check into, hormone dysregulation. The male and female hormones, get tested for that. It's usually like a saliva test. Hopefully, you have a doctor that's well-trained in it. I do recommend seeing somebody who's well-trained in that because hormones are very tricky, and you really need to understand them, the balance and how to test for them.

And one of the doctors that we have had on talk about that is Dr. Robyn Kutka (although most of the doctors we've had on to SIBO SOS are very well-trained in that sort of thing). She's a specialist in that. And I think she does Skype appointments.

So, anyway, try and find someone who really knows about that. And get tested for that because that really can affect motility.





**Shivan Sarna:** Thank you very, very much. I'm trying to type in some answers that we've gone over many, many times that I'm totally sure of the answer for you. The IBS-SMART test has nothing to do with the Celiac test just for the record.

**Dr. Allison Siebecker:** It's totally different.

**Shivan Sarna:** Yup! And the DUTCH panel is a wonderful test for hormone testing. Yes, thank you, Jen.

**Dr. Allison Siebecker:** There's a lot of really good labs out there unlike with parasites. There's like five or six very good hormones testing labs.

By the way, one of the things I wanted to mention on the IBS-SMART, because I know a lot of people have questions on this, is whether it can be used for methane or constipation, equally with diarrhea. And Dr. Pimentel validated that test for the diarrhea and mixed type of IBS or SIBO. But there was a much smaller percentage of people with methane that have that test positive.

Basically, what it's showing us is that food poisoning is more likely, most likely, to cause diarrhea-type SIBO or IBS and then mixed after that; and lastly to be correlated with constipation. It's not very well correlated with that.

But there are people that have constipation or methane-dominant SIBO that do test positive on that test. So even though it's a small number, it can happen.

And so, I've had a couple of handfuls of patients still test positive for that test even though they have constipation. And Shivan is okay to share with everybody—we've done it before. She is one of those patients that had a positive IBS-SMART test even though she has a ton of methane dominance.

**Dr. Allison Siebecker:** So, I guess it's a matter of, it's not as well correlated, so at what level of your investigation are you at. Does your insurance cover it? Are you willing to pay the cost out of pocket? Find out what that is. These are the factors to consider.

But I personally in these serious cases find it very helpful, even if there's constipation.

**Shivan Sarna:** Yeah, I'm very glad I did it.

Here's the thing. Dr. Siebecker, thank you so much. Guys, a lot of the questions, we covered. Some of the more basic—there's nothing wrong with the basic question—do





go to the [SIBOInfo.com](https://www.siboinfo.com) because you could spend a month in there. It's free, and there's tons and tons of information.

If you want to go a little bit more spoon-fed to you, then you can go to SIBOSOS.com—which you should do anyway—to check out the people who we've had speaking there. Usually, the masterclasses are 1 to 1.5 hour masterclasses, powerpoint presentations, followed by an intensive 2-hour Q&A.

And for what you get—I'm not even like trying to sell this to you because I'm fine either way, but it's a great value. These are world-renowned experts.

**Dr. Allison Siebecker:** Guys, this is unbelievable. We have some of the world's top gastroenterologists. And you'll charge like \$50. That's insane!

**Shivan Sarna:** It's insane. And also, it's important to be open to learning from other people's questions.

**Dr. Allison Siebecker:** Oh, on that, by the way, you can search. When you buy them, you get the transcript, right? I do this all the time. When you get a transcript, you can search for it with a search term.