Introduction to Oral-Gut Health

Welcome back. We're continuing our conversation on reversing Crohn's and colitis and really all chronic gut infections. So I have with me today, my wonderful friend and colleague, Dr. Rachaele Carver, who is just a phenomenal dentist, and she's so up on the latest data and research on what it takes to have a healthy digestion system, because, of course, that starts in the mouth and also some to handle the complexities of today's dental issues.

with a really forward thinking, eye, but also a light touch. So you love her for both of those things. She doesn't shy away from the tougher conversations, so that's why I had to have her on here to help you guys out and really connect these dots for you.

How big of a role is your dental health playing in your digestive condition? That's what she's going to help us uncover today. So Dr. Rachaele Carver graduated from UConn School of Dental Medicine in 2003.

The General Practice Residency in Milwaukee. Following three years of private practice in Boston, she opened her own practice in 2009, in the Berkshires of Massachusetts.

She's also a health coach. that's when the Institute, Institute of Integrative Nutrition and became a board certified naturopathic and biologic dentist for the American College of Integrative Medicine and Dentistry.

She is smart and protect certified to properly remove amalgam fillings. Yay is a certified ozone therapy practitioner and she received accredited status with IOM in 2022.

She's also a certified biologic dentist through IAB. And we know, unfortunately, in depth, that not all biologic dentists are created equal. So I would also love to help, the audience unpack that today with you, but you can see why, with her emphasis on nutrition science, homeopathy, lasers and red light therapies, her deep understanding of toxicity, how to prevent invasive dentistry or recover from it and also heal oral disease.

You can see why I chose her to be on this seminar with us today. Thanks for coming in. And of course, she's also got the new podcast, The Root of the matter, on all streaming platforms.

Very fun. Welcome, Dr. Rachaele. Well thank you, Sinclair, you make me sound fantastic. well, you know, it's it's interesting. And thank you so much for inviting me to do this.

You know, my whole journey into biologic dentistry actually started with my own gut issues. So this is very fitting to me.

Biologic Dentistry and Root Causes

And the reason I went down and got that the health coaching degree got all the nutrition and just continue to further my education, was because I developed eczema all over my hands.

And, you know, the dermatologist wanted me to be on steroids forever. And at 33, that just didn't feel right to me. So I started just doing my own research and came across the whole idea of leaky gut. Right.

And over the last 15 years, I've really been trying to understand, you know, what is the root? Because to me, I was saying, my body is trying to tell me something, right?

What is it? And so that I'm just a very curious person. I always want to know why that propelled me to learn more about what I was doing in dentistry.

The more I start to learn about how all these toxins in our environment really affect us. Made me think, boy, dentistry is one of the most toxic professions out there between heavy metals and plastics and, you know, collection and all sorts of materials that become aerosolized that are in our mouth that we're, you know, absorbing, that we're, we're chewing or swallowing.

I want to know, can I do this better? Is there a better way to do this? So, to your point of biologic dentistry, this is not a specialty. It's not like an endodontist or a root canal specialist or an orthodontist who specializes in braces.

Biologic dentistry. It's more of a philosophy. And when we. There are these different pathways, right. There's 2 or 3 main, organizations. The International Academy for Oral Medicine and Toxicology.

There's also the International Academy, for biologic dental medicine. So those are the two main ones. There is the academy for all systemic health. There is the Holistic Dental association.

But those other ones are the two main ones which have certification to learn how to properly remove amalgam. That's that's one big, most every biologic dentist should know how to do that.

Correct. that's really important. but not all biologic dentists learn the nutrition and what I've found fascinating over the last 15 years is how so many of our nutrition theories, different products like standard process, all started with dentists.

you know, Western price. Anybody follows the Price Pottinger, you know. Right. He was a dentist. and now page, who talked a lot about the different types of, fast versus slow metabolism to now he was a dentist.

and some people have started homeopathy. So we're, we're dealing with the mouth, right versus right where our nutrition right where digestion starts. And people forget that.

We forget that the mouth is connected to the rest of the body for whatever reason. Right? We have cut the head off, right? And the rest of the body, but the same tissue that lines our mouth is what lines the entire GI tract.

So of course, what's in your mouth is going to affect your body. We swallow between 1 to 2l of saliva every single day. And, you know, there's been so much study with the whole, this microbiome project, right?

There's lots and lots of research talking about this, and more recently, more and more research showing how the oral microbiome is related to the gut microbiome, how the oral microbiome we're seeing all types of, oral bacteria in patients with IBD.

So whether it's Crohn's or colitis, there's tons of studies showing what how did they get there? Well, it seems pretty obvious, right? If you swallow saliva you've got lots of bacteria.

Now you can swallow that directly. But then the question is, well, you got a lot of acid in your stomach, right? How are these bugs getting through the acid stomach?

I think it's twofold. One, a lot of these so-called pathogenic bacteria, like an acidic environment, you know, that's why they thrive in these acidic environments, which in the rest of our body, other than in the stomach and a few other areas, is a prob problematic.

We want to be more alkaline generally in other areas of our body, but also, I believe people who suffer from ID, IBD don't have as much stomach acid. I think that's one of the main reason why do we get Sibo and Carbo and all these kind of things?

Usually if we don't have enough stomach acid, we're not killing those bacteria that we're swallowing. That's one of the reasons we have an acidic stomach, because.

So when we do get bacteria like H. Pylori, right, it's a natural, inhabitant of the stomach, but we don't want it to

overgrow. so in patients with that inflammatory bowel disease, generally they're going to have lower stomach acid.

So yeah. So those bad ones are going to get through. Now the question is and there's always debate about about this. Does the the bacteria is the dysbiosis a consequence of the IBD or does the IBD cause the dysbiosis.

You know, and and but none of us do it. I mean, I read so many studies and none of them talk about okay, so we have these pathogenic bacteria, but why did they become pathogenic in the first place? Right.

We don't all of a sudden one day just swallow a vial of pathogenic bacteria. And now we have disease. Like that's just not how it works. And so I'm a big believer in the terrain theory, right.

It is not about the bug. Right. And everybody knows it's it's common sense. You can have the flu. Your partner who sleeps right next to you, who is sharing space with you.

They don't get it. If it's all about the bug and we're sharing all these kind, how is that possible? Because we're all unique individuals, right? And that is so, so important and so it's been really in the past, in the last few years really thinking about that.

Stop getting worried about the bug. Stop trying to kill the bug. How instead can we provide a healthy environment within our bodies so that when we encounter the bad thing, whatever it may be, our body is resilient, our immune system is optimal, and so that the immune system can recognize this, you know, enemy, shall we say, and wrap it up in a nice little package and poop it out, right?

I mean, that is the idea. And so that's what we want to think about with, with this bacteria. And it can be fungus and whatever, all different kinds of things.

But there is something within the body that causes the environment to change. And therefore we have something we call paleo morphism. So all these good bugs now can morph into different forms of, bacteria or fungus, whatever it may be that then have more of this, this pathogenic, trajectory.

Or we can just have an environment where because the environment becomes very acidic, it becomes nutrient deficient, right? It becomes less oxygenated.

Oral Microbiome, IBD, and Terrain Theory

Now, those healthy, good bugs that keep our gut lining feeling nice and strong, they can no longer survive. But those so-called bad bugs, they thrive in acidic, nutrient deficient environment.

And so now they are going to reproduce and get higher numbers. They're going to release and inflammatory mediators. They're going to start that whole cytokine cascade right.

Which is going to lead to inflammation. And so either by swallowing these now pathogenic bacteria or that pathogenic bacteria getting directly in the bloodstream within our gum tissue. Right.

So our our gum tissue is incredibly innervated. There's so much blood flow here. this is what we don't realize. It's really fascinating. And dentistry too, we can have raging infections in our teeth and yet feel nothing. Right.

And so this is this is a really important missing piece in health, especially if you're dealing with some chronic inflammatory disease. What is causing that.

So one thing that that I love and I have in every operatory, it's a tooth meridian chart. So every tooth if you're familiar with Chinese medicine, all there's about 13 main meridians that kind of connect the top of our head to our toes.

And every single tooth will pass through one of these meridians. So when we're thinking about Crohn's and colitis,

we are thinking about small intestine, large intestine, large intestine, generally more, the lower molars.

Right. Your your first and second molars. Those teeth are on the large intestine meridian. So let's say you have a root canal. And one of those if you have, you have gone down every avenue and nobody can find anything.

Nobody can find any other infections or or toxins. And it's, you know, everybody's scratching their head. Have you looked in the mouth? Is there a problem with one of those molars?

Do you have. And the wisdom teeth are on the small intestine meridian. So most of us get our wisdom teeth out. And maybe we had a dry socket. Right. And what is that?

Well, when the the tooth is removed and the blood clot comes out prematurely, you get a hole in the bone, basically. And for a lot of reasons, it's kind of beyond the scope of this right now.

It might not ever fully fill in. So the gum tissue might fill in, but there still be a hole in the bone. And you don't feel this, you don't realize it.

It doesn't hurt. But in that space now, there's not really blood flow coming in there because there's no longer a tooth, but Lyme bacteria, fungus, I mean, you name it, parasites.

That is a perfect hiding place for those because again, there's no blood flow. So now there's no immune surveillance there. However, as I was saying, those so-called bad bugs, right.

They are giving off their byproducts or giving off cytokines and toxins. 20% of your lymph is in your head and neck, and you are draining into the lymph system all day, every day.

So can that impact your GI 100%? Absolutely. I mean, we we I hate to say it, but we've seen so many hatchet jobs with wisdom teeth removal. So, you know, ten, 20, 30, 40 years later and, you know, your dentist may show you like, oh, yeah, look, there's like a little bit of broken off tooth still in there.

Is it bothering you? And you'll say, no, but you have cystic acne or a digestive condition or chronic fatigue or sinusitis or sluggish lymph, and you're not connecting the dots because you don't know how to sort for this.

You know, you're not thinking it through because you'd never been taught about this connection. And I really appreciate what you were saying earlier about polymorphism and terrain theory, because, you know, I like to say toxins necessitate a microbial response in the body.

You know, Candida is a great example of that. And so R is H pylori. Candida is there to mop up toxins like in those amalgam fillings that you and I both love to rag on.

Yeah, yeah. Because it's such a fixable thing. But you know, you don't want to just kill off your candida with a cleanse, not understanding why is it there?

Why did it bloom in the first place? A healthy body has candida in it just doesn't have an overgrowth of candida. And if you kill it before understanding and supporting the body to detox what it's trying to stabilize for you.

Like the mercury in your Malcolm fillings, like your birth control. Which is another great reason for Candida to have bloomed for you. You know, like your mycotoxins.

Then you're just going to have the same problem coming back, or H. Pylori mopping up those toxins in our chemicals and in our tap water. You know, studies now show that if you kill off H.

Pylori too early, you can actually have an increase in GI symptoms. So I really appreciate you setting the stage for this. What else do we need to understand about how oral bacteria actually impacts the lower GI system?

So, well, it's really interesting too, because there's a recent study that came out about the bacterium nuclear atom, which is a really common oral oral bacteria.

often found in the oral cavity but not found generally in the lower GI. there was this one study and they were showing they were saying, okay, if you have f nuclear atom, you're going to get colon cancer, which, you know, of course they try to scare us with these headlines.

So if you dive down into the research, what was fascinating was that it was only a specific clone of fuser. So it was called f c. And they two, you know, versus the C and one version of this type of bacteria.

So again when we're talking about how are things shifting right. How we can go from a perfectly healthy normal on to a morph into that. So I also want to highlight that a little bit more about again what are the environment changes.

Because as you said in dentistry, in medicine too, it's always about kill the bad, kill the bad, kill the bad. Right. And in dentistry it's, you know, antibacterial mouthwash.

It's antibacterial. we have these little, kind of doses of antibacterial we can put right into the gum tissue, and it's just kill, kill, kill. Most traditionally, if you have any kind of gum surgery, have oral surgery.

They give you antibody attacks or this antibiotic mouth, which, rinse, which kills everything, right? I mean, if we haven't learned anything by now, having bacteria, there's just as much bacteria as there are regular cells.

Right. And they are so important for assimilating our nutrients, for ensuring our good metabolism. Right. So many people gain weight because their gut bacteria is off, right?

They're trying to eat certain diets. And I'm like, man, how do we get that that gut bacteria. Right. So how do we think an and if you just killing the bad like you just said, without understanding why they overgrow in the first place, you're just on the hamster wheel and you never that's why.

Oh, you know, just to see my dentist every three months, you know, every three months I just go back and we just keep maintaining. Well, no, like that should not be the the goal of health, right.

The goal of health is to reverse all this disease and to stay healthy. So we have to consider what is the pH of the mouth, what is the oxygenation? Most of these so-called bad bugs live in a less oxygenated environment, right.

The good ones love oxygen can thrive on oxygen. So at the end we'll kind of talk about these strategies. But and then when we have these toxins, whether it's from what we're putting in our mouths, what we're putting on our skin, you know, our cells have to work overtime to try to get rid of all of these toxins.

So then we become nutrient deficient, right? We're we're lacking in a lot of our B vitamins. We're lacking in our magnesium, our vitamin D, vitamin C, they're being used up so quickly.

And because our diet today is so deficient in these, you know, key nutrients, we can't keep up. Right. And so we just keep making more and more of these, these, you know, pathologic, bacteria.

So, and the coolest thing about my job is that the mouth is very accessible. It's a lot harder to try to treat the small intestines and the large intestine, but the healthier we keep the mouth, the more of those healthy, oxygen loving species that we keep in the mouth, the fewer we're going to swallow, the fewer that I'm going to get, you know, that are going to cause gum inflammation, that allow that to get directly into the bloodstream.

I mean, it's been known even I learned 21 years ago in dental school, right? There was a direct correlation between oral bacteria and heart disease, right?

Yes, that was accepted. But all this other stuff is like, oh yeah, that's a cause. Alzheimer's and kidney disease and cancer. Yes, yes, yes, yes. How can it cause heart disease but not cause anything else? Of course.

We have one blood stream running through all of us so it can. Cause I'm. Sorry. That's too logical. That's not allowed. Right? You need to be selling more scope.

That's what I'm hearing out of this. Oh my gosh, you're going to tell us your favorite products by the end. I am I'm not going to tell you how I fix the whole.

Damn. Thing. That's interesting. There was actually a fabulous article that I wish had gotten a little bit more, more press. But in 2019, nature magazine came out with an article and they were talking about how, periodontal pathogens existed in health.

But the balance, the shift, the numbers increased based on the environment. And I was like, if this isn't proof or terrain theory, I don't know what it is.

Diet, Toxins, and Microbiome Balance

And yet, you know, I'm like, I just happened to find it, luckily, you know, but I was like, the one thing that was frustrating to me, I was rereading it again last night is what exactly where they put it.

You know, they took saliva from from healthy people and they inoculated it. And they put them in a specific serum. But they didn't say, I'm like, what was in that? You know?

And they did say it was kind of a protein rich serum that they put them in. And they noticed that all of a sudden now they were having bacteria that were, that had genes for, all sorts of immune system alteration, like all negative genes were getting turned on.

Right. And, you know, this is kind of interesting to me. I was like, okay, high protein. Well, I think what we don't realize we all vilify sugar, right?

Oh sugar. It's terrible. It's going to cause cavities. but glucose is the predominant food for our liver and our brain. So I think we have to reframe the way we think about sugar.

Right? You know, in carbs in general. Right. Carbohydrates are not created equal to, you know, table sugar, cane sugar. It's the high fructose corn sirup.

And that the processed sugars, even the stevia. And, you know, all those fake sugars, even I'm going to say it xylitol. Oh, I know, devastating for your microbiome.

But so many even by a lot dentist are on the bandwagon that xylitol is great. You know, there's all these studies, it reverses cavities, but it does it by killing.

It kills. And and what we were just saying is we do not. That is not the goal. So acutely you want to get something down like, let's say you're going in for heart surgery tomorrow and we need to get that oral bacteria down right away.

You know, my protocols take six weeks. So, you know we need to do something immediate okay. You know, but that is not the long term solution. Ever, ever.

In xylitol, there's so many studies that show just like sorbitol and, you know, so many natural toothpastes for full of sorbitol and xylitol and too many, essential oils, which again.

Good. But again, the balance. What is our ultimate goal? What are we trying to accomplish here. Right. And so that's really important. So when we can focus on getting a really healthy environment in the mouth, we're going to absolutely change the way that the rest of our gut is is reacting.

Right. We can actually help get rid of that IBD when we can stop feeding the inflammation with the pathogenic

bacteria, with all this cytokine storm and stuff like that, the body can start to heal.

But a lot of it also has to do with the nutrition. Right? And the good bugs they make sort of short chain fatty acids from carbohydrates. So I know a lot of us who've gone through gut protocols, we'd like cut all carbs out, right?

Because we don't want the bad bugs feeding on the sugars. And we all do feel better. I did feel better when I cut that out, but then it got too much again.

So anytime you change your diet, you're going to feel better. But long term. Maybe not the plan. Like if we don't have any carbs we're also starving the good bugs.

Right. And that that doesn't mean you know we're going to grab and pretzels and you know glyphosate ridden grains and stuff like that. Right. It's the fruits and vegetables, those kind of carbohydrates which are absolutely vital.

And just like that experiment I was saying in the nature magazine, they just put in protein. There was no carbohydrates, right? So the good bugs, they had nothing to create.

And those short chain fatty acids are really important for creating, proteins, which help make the tight junctions. Right. So I'm sure other people have probably talked about this leaky gut is when those tight junctions, you know, kind of break down.

And so all sorts of things can pass through that one cell layer thick barrier and create havoc in the immune system. So we do need to have some carbs.

We need to have the right ones. And in the right balance. Right proteins are absolutely vital to make the enzymes to break down these bad products that are, you know, being created when we have all of these bugs run around making all sorts of inflammation.

So and the other really important thing is and we got to balance it with fat. I was so fascinated recently. I was like, I was working with a nutritionist and said, man, I just can't seem to dial in my diet.

What is the problem? He had me go and get this app called chronometer. I was amazed how much fat I was eating in a day and not enough carbohydrates and not enough protein.

I didn't think I was eating a crazy amount of fat, but if we really, you know, right, that I was like, wow. So I was basically. I did the same thing. I was like living on avocado.

And I was like, that's good or bad, right? And I was eating a lot and nuts and seeds, which again, are really high in the polyunsaturated fatty acids.

And and if you look in the bioenergy sphere of research, you know that, you know, sugar. We vilify sugar. But, you know, I think a lot of the polyunsaturated fatty acids are problematic too.

And usually we know that in canola oil and, you know, safflower, the corn oils, we know all of those are bad. but. I hope we all know those are bad. Do you want to quickly explain why since we've introduced that concept?

So the problem with oils is when we processed them and packaged them, they can easily oxidize. So especially if something is put in a plastic clear bottle, right.

Oxygen, light, all of these things oxidize. And the oxidation products create tons of inflammation in the body. So some of the people in this fair will even say fish oil, which everyone has.

Fish oil is so good it's anti-inflammatory. It's omega three. It is so. Hard to not at why chain is rancid. Yeah. And a lot of that is, you know, using our fish guts that have been rotting on the deck in the sun and scooping that up and turning that into a byproduct.

And so you're using, a fish company's trash, essentially, and you're paying a premium for it. So it's only good if it's not rancid. And also, I have a lot of questions about that with Omega actually turning into you know, actually becoming rancid and, you know, room temperature.

And of course your body's higher than that. And there's just there's a lot of problems there with that line of thinking. And I just encourage you guys to unpack that further and see if it's actually right for you.

Yeah. And, you know, you're much better off eating the whole fish. You know, especially it's interesting in the Western price, you know, sphere, they really push the fish oil.

And I was like most in price you know he was holding fish. It was not fish oil. It was vitamin D. And A is is good. You can get it in fish oil. But again it's too rancid. You risk too much.

We already have so much that we can't control in our environment. Right. Everything we put on our body, in our body. Let's be aware of the consequences.

And so much better eating the whole natural foods. That's how we get. That's the key for me to reverse carries and gum disease. Nutrition is number one.

It is absolutely number one. We've got to focus on getting those fat soluble vitamins, getting in the minerals. That is what's really lacking in our food supply today.

And that is number one. It's not about brushing and flossing and fluoride. I do not believe in fluoride not a natural component of to structure. It is, another industrial by product toxin.

There is a national lawsuit going on right now, about how fluoride causes IQ, but there are over 70 studies proving that it lowers IQ in children. Yeah. I mean, it's just there's no need for it. And that is and.

These aren't fringe studies like they're in Jama. Okay. Like this is on PubMed. This is not a secret. And we're still fluoridated 70% of our water districts intentionally.

And it was never proven to actually strengthen teeth when taken in water. It densify us teeth if applied topically. I'll let you explain. You're the dentist. Go now.

But you're right, I love it, but you know it. And yes, so they show. So topically. Is there some theory? Okay, maybe. But again, when you apply it topically, it's killing bacteria.

It's a killer because it's toxic. It also is going to compete with iodine for thyroid hormone. Okay. How many of us are walking around with hypothyroidism are.

So it's so many of us like they. Literally prescribed fluoride back in the early 1900s for hypothyroidism to slow your thyroid down. This is so stupid that we're not acknowledging this like the data is there and doesn't it not only densify the surface of the teeth, but actually make them more prone to chipping later on?

Well, it's exactly the same theory of bisphosphonates, right? So when you stop breaking down bone. Right. And by using these bisphosphonates, right, which are for osteoporosis patients, you form new bone around dead disease bone.

So on a Dexa scan it does look more dense. But basically it's hard bone around holes. So actually the bones are more fragile. That's why in our country women tend to have more hip fractures because that is not the problem, right?

Why are you breaking down? You know, let's look at the toxins. Right. You know, as we're women, as we get older, our estrogen decreases. Well, where have we been storing toxins for the last 55 decades?

Right in our bones. So now with less estrogen, we are removing more, more bone. Estrogen helps us build bone. So with less of it, we break it down a little bit more.

And now we're letting go. So many toxins. So let's talk about those toxins. Same thing anywhere in the body. Same thing with the teeth right. And that's what the fluoride does it it does.

And it creates it's weaker especially if you have it as a child. You get fluorosis. You can get it in the bones again in the teeth. They look terrible because they're modeled and they and you can't bond anything to them.

So not it's not a good idea. Again that's that our teeth are made of minerals. Our teeth are made of calcium and phosphorus and magnesium. So that's what we need.

I so I agree with you. I mean that if anybody's wondering why are we, you know, ragged on fluoride in a gut summit? First of all, many of the fluoride studies out there are talking about how devastating it is to a healthy microbiome and how it kills off beneficial strains of bacteria that you must have in order to self-regulate.

And also produced byproducts like, oh, you know, you're right amounts. So let's just consider that as well as yes. And then it makes you passive. It slows down your thyroid and lowers your IQ like it's it's a horrible health experiment gone wrong and it's not even legally required.

it's only legally required in seven of, the United States and everywhere else. It's voluntarily done and often administered at the local level.

Fluoride, Testing, and Oral Diagnostics

And if you're, you know, frustrated as you're hearing this, guess what? It's usually one mom and one local practitioner, usually a doctor that team up together to go to their local administrative body, whether it's the city council or the county, whoever's doing it in your area and saying, hey, here's the data.

Can we please stop doing this to ourselves? Yes, it's a thankless job, but we're fortunate. Where I live, we don't have it in our water. But in Albany, New York, right over the border here.

they were thinking of doing it. And I wrote to the mayor, and I just got back a standard response. You know, just toeing the line. It is the greatest public health, you know, mastery of of all time.

And the CDC is still saying it's one of the top ten greatest, you know, public health measures. Yep. It's crazy. Absolutely. Yeah. But it's the same thing.

So again, when you're using fluoride toothpaste, you're changing that whole oral microbiome, which is going to impact the gut 110%. So like I said, mouth super accessible.

How can we get that. And you can at home. Right. We have test. We can talk about some of the oral saliva test. But at home you can buy off Amazon little peach strips.

Right. And you can test your throughout the day because the lower the pH, the more acidic your mouth is, the more you're going to select for those those bad.

So that is something that's super cheap that you can do all day, every day. And then you can see which foods do I eat, which create more alkalinity, which foods actually create more acidity?

now if you want to go deeper, there was an interesting, study in May of 22, in the Journal of Chronic Colitis that showed how salivary microbiome. They used it as a predictive model with accuracy of over 70%.

So a lot of times interesting anywhere between like ten and 50% of people with Crohn's and oral and ulcerative colitis have oral manifestation. And it usually can precede by months or years.

So that's why predictability, guys, is phenomenal. When you consider that many of your precious gut stool tests out there that have been popularized recently and they're being upheld as like this fantastic way to assess your gut microbiome, they have accuracy as low as 24%, down to 11%.

Like it's appalling. So 70% or higher. This is a phenomenal. Statistic and so much more easy you know yeah. Spit in a two versus you know you know collecting from the other end.

So and tell us more. Yeah it's a lot less expensive to. Right. So there's a couple of main ones out there. the new one that I've been using is called bristle.

just like the bristles on a toothbrush. And what I love about this tester was another one I used for a while, but it was only zoning in on the so-called bad bacteria.

And as we've learned, they're present in health too. So what we really want to understand is what's the whole environment? How many good, how many bad, what types.

You know that that's important to understand. So there's two things I do actually. The first thing I do is a screening test which cost 20 bucks in my office, $20.

It's like easy. And every new patient who comes in, we do this. because I want to know what are your risk factors? I'm really big on prevention. What is your risk factors for cavities and what are your risk factors for gum disease. So the so half oral test again, you spit in a little tube with it.

You put you drop it on to this little, litmus paper, throw it in the machine. Five minutes later, you get the results. So in that test, we can screen for cavity causing bacteria levels. Buffer capacity. Right.

So maybe you have a lot of cavity causing bacteria, but your buffer, your saliva is full of great phosphates and ammonia. So you can balance that. Right.

Because again it's not about one thing. It's about the whole environment in your mouth and your body. That making sense. And then we test for blood present in your saliva white blood cells and protein.

This is a real interesting. And ammonia. So the first two you know the first three I'm looking at the risk factors for, for cavities, the blood, the white blood cells and the protein.

I'm looking at for gum disease. Because we know if you have gum disease, which statistics say over 80% of us do one form or the other, that puts us at risk for not only IBD, but Alzheimer's, kidney problems, cancer, you know, pregnancy problems.

So all sorts of issues. Right? It's just anything with inflammation, right? Inflammation is at the root of most chronic disease. So we got to take care of it.

And then if those numbers are high, even if it's what's fascinating to me, you can look at the person and they look like their mouth is so healthy. You know, it's obvious when somebody has swollen, bleeding gums.

But even those of us who may not have those overt symptoms and even myself, when I first got this test, I tested myself and those numbers were high for me.

But, I mean, I never had bleeding gums, you know, I had my very healthy, but I'm always working on my gut, you know, with my high stress job and my genetics, and I don't detox all that great.

I try to eat well, but you know, you know, life. And, so it was really interesting to me because I'm like, wow, look at the the inflammation in my gut is reflective in my saliva.

so then I was like, okay, I'm gonna I'm gonna up my game with my mouth, right? And my nutrition. Right. So that

was really before I manifest disease, right?

We all know it's so much easier to prevent than it is to treat. Right. And so so that's a great screening tool. It's not diagnostic but screening. Then let's say somebody keeps coming back and those numbers are still high.

Now what we can also see in the mouth, is we talked about the teeth being on the Meridian charitable the tongue. If you look at Chinese Inari Vedic medicine, every place on the tongue corresponds to a different organ system.

So if you look straight at your tongue in the middle of your tongue, that's where the spleen and stomach meridians are. And those in Chinese medicine are thought of as your digestive organs.

If you have a big crack down the middle of your tongue, or you have like a coating that's white or yellow in the middle of the tongue, that's a sign of digestive, we'll see a lot white.

We talked about Candida earlier, right. And as you said, candidates present in all of us. But when we're eating having too much fluoride toothpaste and we're eating this right.

Too many polyunsaturated fats, right. We may get an overgrowth and you'll see it as a white coating on the tongue. Now the large intestine is a little bit farther back.

It's towards the middle back. So many people I see the coated yellow, the coated white and you know, and they may not feel anything, but, you know, there's low grade inflammation happening, which I think living in this world today, probably most of us have some kind of low grade stuff because it's hard to avoid all the toxins today.

But then you can look at the the tissues inside the cheeks. And very typical in Crohn's patients, they have what we call cobblestone, which looks like cobblestones.

Basically we'll see it in the palate. The roof of the mouth, or we'll see it along the inside of the cheeks. Might see in ulcerative colitis more often.

No surprise they're seeing ulcers, right. So if you have somebody who has chronic ulcers talking to you, dental hygienist, anybody in the dental profession out there, somebody who is chronically getting these ulcers, maybe think, how could there be GI something going on there?

Because why are they getting so many angular colitis. So that's cracks at the corner of the mouth. If you went to dental school they tell you, B vitamin deficiency.

Well could it be. And you know, they said, well, I'm already taking b-complex and I'm taking bee pollen. I'm doing all the things like, let's look a little deeper.

Could there be look at the tongue. Right. Could there be other genes? And let's do a saliva test. Let's pull out the bristle. So the bristle. Same thing you spit in a little too.

But that gets sent to the lab and they I undergoes their, sequencing whatever does. And what I love about this, this is really this is really made for the layperson.

So it's color coded like it's a great, great system. And they'll show you what's your level of beneficial bacteria. That's important to know, because maybe you have some bacteria that are associated with gut inflammation, but you have so many good that you're balancing it out.

Right. It will show you do you have the bacteria that that produces nitric oxide? Nitric oxide is a really valuable, molecule that helps dilate our blood vessels, right.

If our blood vessels are constricted all the time, we're not getting oxygen and nutrients to the cells where we need it most. so even if you're eating the best diet, but you have terrible circulation, maybe it's not getting where it needs to

go.

And that's the other problem. When you're giving all these oral rinses, whether it's Scope or Listerine or the or the prescription ones, you're killing the bacteria that make nitric oxide, so you're actually doing yourself a disservice and potentially causing more problems by killing the bacteria we know there there are so, so important.

and, we can see like halitosis is one of the things they measure, right? If somebody and in my experience, if you have chronic bad breath would always have that problem.

Always always always, always. And I want to test for H. Pylori and I, you know, every time that's a chronic thing. It's, you know, maybe scrape your tongue a little bit.

Right. But this is interesting because in in Bristol they'll show you it's a, if it's a tongue, if it's a species that's known for being in your tongue or being on your gum tissue.

So like for mine, it's an I don't have bad breath. But it said you have if you have bad breath I have bad breath. Mine or on my tongue. So I'm like right you tongue scrape you know, get a copper a little tongue scraper and scrape that off.

So it really helps you personalize, your treatment plan versus throwing Listerine at somebody. but I know that they don't. Ever do that. Throw out the Listerine.

Don't waste your. Money, and then you're distorting your gut microbiome, and then you're paying to try to rebuild it. It's insane.

Practical Strategies and Closing Advice

Okay, so, any last tips about, like, your favorite ways to balance your microbiome that we haven't covered? They could really support people with chronic conditions. Yes.

So I'll just briefly mention it here. But part of the free gift with the summit, it does kind of go into a little bit more detail about how we can kind of reverse these, these things.

But again, how do we get the healthy environment right. It's not of course we want to brush and floss. You know, we want to help to remove some of that plaque on there.

but diet is key. As I already said, we need to have that soluble vitamins so that D E A and K preferably from whole unprocessed foods minerals absolutely vital.

Now I like to use liquid minerals. So many of us, right. If we have gut inflammation, we can try to eat the best diet we can. We. But we may not be absorbing very well because maybe, you know, if our gut microbiome is off, you know, we're having trouble absorbing it.

So I like liquids, I like homeopathic, things that that are helpful. I like what you guys. So I'm a big soccer fan. so I like, we'll get into that one.

So I like to use, cell salts, like calcium. calcium phosphate. Calcium fluoride I know it says fluoride, but it's it's not that kind of fluoride. and I especially give these to my kids, right?

Because they're the little homeopathic sugar pills. They just are so easy. You don't have to have a child trying to, swallow a capsule. Right? And I know having kids of my own, like what? How?

What's the easiest way we can get this stuff into, kids now? So, there are plenty of companies out there who sell trace minerals in liquid form, so that's great.

Throw it in their water bottle, throw it in, you know, juice, whatever, where however, you can get it in directly in the mouth. So when silk or had their minerals in liquid form, I gave them to all of my patients right and right under the tongue.

I want to absorb in the mucosa right there, right in that, that area. that's also going to immediately alkalis. Right. So now, if I get trace minerals, right.

They have I use them I also use from energetics. I use spectrum in that I love that one because I have sulfate in boron. A lot of us women, especially as we're getting toward menopause, we're really lacking in boron.

So that's really important for our bones. that one does have a little bit more of a salty taste, but, you know, okay, you can dilute it. so again, I love liquid and absorb that right into, into the mucosa there.

We've got to if we do have the bad stuff. Right. So we talked about nutrition. I also use oxygen drops. So it's a liquid drop. I get from this, company and have the patients five drops twice a day right under that tongue.

Get that environment oxygenated, get it oxygenated liquid. Drop it. Super easy to use. But then if there are bad things, right, we need to stop up the toxin.

So this is where I love cell cause binders. So I have everybody in my programs get on bio toxin binder. And it's not the most delicious. But I have them open the capsule. Right.

Because if we swallow it, it may not even open until the large or small intestine. Right. So we're kind of missing half of our gut there. So we open the capsule, we swish with it, try to sop up all of the, you know, toxins and inflammation right directly in the mouth.

And then we swallow that down. So we're getting the benefit of collecting all the stuff down the esophagus into the stomach. I love cell of course products because they are full of the electrolytes and amino acids.

So unlike some other binders, they will bind the bat. But they're also giving you nutrition at the same time. They're specialized carbon technology. That is what our cells love carbon, hydrogen and oxygen.

That's what their products are based on. That's why so many of us have had such good success with our products. And I had I've had patients past parasites just using bio toxin by no, not not to mention their awesome parasite products.

But so I love bio toxin, but I also use proteolytic enzymes. So I've noticed when we have a lot of inflammation again then we have leaky gut. Those larger proteins can sometimes be getting through those tight tension.

And that's kind of where allergies and autoimmunity maybe comes from. The immune system is not seeing them broken down into their amino acid, parts. So these large proteins can create inflammation.

So I really like enzymes on an empty stomach to help remove those toxic. Because the more toxins that we have. Exactly. And the more that we have, right, the more that we continue that inflammatory cycle.

So I love enzymes for that reason. With the binder and then with all the nutrition stuff. And that's been my little package. We've had amazing success, kind of getting rid of the bag and supporting the good.

So, you know, those are, Not bad, Dr. Rachaele And I also love her, a fan of rabbit and toothpaste. So, I don't think you need fancy toothpaste. I mean, if you want to just use baking soda and and some minerals.

Awesome. but providing does have prebiotics, minerals, vitamins. You know, all these things. Some people don't love the orange taste, but they are coming out with mint, you know, sometimes.

so that's a good one too, that I think really helps boost the beneficial. I agree, we often recommend revising as well

for so many reasons, because it's not destroying your beneficial oral bacteria to you are a wealth of information.

Thank you for sharing so much today. Where can people find you. So you can, find me Our website is carverfamilydentistry.com We have we are on Instagram.

We have Facebook. I don't do a lot of that, but but there's stuff there. if you want to reach me directly, you can email me at drcarver@carverfamilydentistry.com And please check out my podcast.

We love to, create all the wellness and we're going to get Sinclair on there one of these days and talk about all her good liver stuff. Love that. So fabulous.

But yes thank you I appreciate you having me on. And I hope somebody can take something from this today and improve your oral health and therefore improve your overall gut health.

That's wonderful. Thank you so much.