Podcast Intro and Oral Health Overview

Most people think oral health just means having white teeth and minty fresh breath. Like, if you're not scaring anyone with your smile, you are good. But your mouth, it's not just decoration.

It's basically the front door to your body. And if that door is left cracked open, hello, we got bleeding gums, oral inflammation, all kinds of stuff that walks right in.

bacteria, toxins, inflammation, and others say their chronic back pain or joint pain magically eased up once we addressed the oral pathogens. The body's like, thank you!

It's wild how much a tiny little space in your mouth runs the whole sh- Exactly! I always tell patients if your moth is inflamed, it's basically texting your entire body saying, hey, we've got drama after!

And your body listens. Suddenly, you've got high blood sugar, hormone imbalance, or brain fog. And no one really connects it back to the bleeding gums that they've ignored for months.

Welcome to The TBD Fit Podcast on Dr. Talks. I'm your host, Daniel Keeley, and I will be guiding you through this wellness journey in terms of optimizing health and longevity, where we unpack the science, the do's, and everything in between.

Come join us. Look forward to seeing you inside. Welcome back to the TBD fit podcast where we uncover the science strategies and stories behind functional health and wellness.

Today's episode dives new topic that most people rarely connect to their overall health, which is the mouth and the oral microbiome, Which obviously, as many know, that's been kind of my focus of study for the last decade.

So our conversation today is The Mouth Matters, Connecting Oral Health to Gut Health and Beyond, where we will explore how oral health influences the gut, the immune system, and even chronic inflammation throughout the body.

Joining me are two incredible guests from TheMouthLab, a pioneering collective leading the way in biological and integrative oral Health. First, we have Angelina Guion, who is a biological dental practitioner and co-founder.

and Clinical Education Director at the Mouth Lab. She's known for advancing oral systemic health through education and clinical excellence, and for her unique ability to translate complex bacterial science into practical strategies that help both patients and practitioners address inflammation at its root, which I saw firsthand in their presentation when we were at a conference together.

Alongside her is Jasmine Platero, co-founder and research director at the Mouth Lab with a foundation in kinesiology and whole body wellness. She bridges the gap between dentistry and systemic health, leading innovative research and developing protocols that connect the oral microbiome to gut health and immune balance.

Ladies, if you want to introduce yourself so everyone can know whose voice goes with who. Hi, I'm Angelina Guillen. So thankful for having us here today.

We're honored to be here and share with your listeners why oral health is so important. I am Jasmine and I also really grateful for this opportunity and.

And I excited to tell everybody why the mouth matters. Beautiful. And it was a genuine pleasure and very eyeopening when we were at the microbiome labs conference to hear both you ladies speak and immediately I

wanted to be able to showcase that because for a long part of medicine here, dentistry has kind of been archaic in some respects, how we're doing root canals and how looking at oral microbiome.

And so when you guys were correcting a lot of very serious infections without the use of antibiotics and using just probiotics and not even like lozenges or dissolvables, but probiotics that influence the gut microbiome and then the highway that leads to the oral microbiomes to me was absolutely astounding.

So I appreciate you guys coming on the show today. Yeah, you know, most people think oral health just means having white teeth and minty fresh breath.

Like, if you're not scaring anyone with your smile, you are good. But your mouth, it's not just decoration. It's basically the front door to your body.

And if that door is left cracked open, hello, we got bleeding gums, oral inflammation, all kinds of stuff that walks right in. Bacteria, toxins, inflammation.

Introducing The Mouth Matters Episode

They just move in, eat your snacks, and mess with heart, your joints, even your brain. I've had patients whose blood pressure normalized once we got their gum inflammation under control.

And others say their chronic back pain or joint pain magically eased up once. We addressed the oral pathogens. The body's like, thank you. I can breathe again.

It's wild how much a tiny little space in your mouth runs the whole show. Exactly. You know, I always tell patients if your mouth is inflamed, it's basically texting your entire body saying, hey, we've got drama up here.

And your body listens. Suddenly, you've gotten high blood sugar, hormone imbalance, or brain fog. No one really connects it back to the bleeding gums that they've ignored for months.

We've seen women struggling with fertility finally conceive after treating periodontal infections. We have seen patients with chronic inflammation feel clearer, more focused once oral pathogens were under control.

The frustrating part is that medicine and dentistry have been like exes who refuse to talk to each other, but they're raising the same kid, the human body.

Their mouth tells the story and it's time everyone listened. I couldn't agree more. And the body tells a story. We just often neglect this intuitive nature, right?

So if we have a pain here, we just attribute, you know, that's minor. That's nothing. Well, often it is it's probably because of what you maybe ate the night before, or just in general, your overall inflammatory burden.

When we had pain in the mouth, it was no different, but we're not usually connecting the dots. I find that each tooth is an individual organ. Right. With this own life source.

And there were some new research coming out that each tooth has mesenchymal stem cells that we can now begin to harvest. Right? And so this stem cell craze is very unique and going back to the white teeth component to me, we are obsessed with this cosmetic culture.

Often enough, you are grading your enamel. You're changing the pH in the saliva and every enzymatic function is pH derived. And so we're losing this balance.

We're becoming more acidic. It's allowing for this pathogenic activity to proliferate and blood sugar dysregulation, which then begins the root of modern chronic disease.

Why? Because their inflammatory burden is so high. What does an oral systemic connection really mean? What is it? really look like? So a lot of people get confused because when you hear the phrase oral systemic connection, it sounds fancy, right?

Like something you'd see in a research paper. But what it really just means is that your mouth and your body are on that same group chat. So when things go down in one, the other gets the message instantly.

Your gums are loaded with blood vessels and immune cells. If there's inflammation in there, It's not just staying local. It circulating like gossip to your heart, your gut, I like to say your mouth isn't just the front door.

It's the command center. If it's calm and balanced, your body stays chill. But if there's chaos in there, you're immune systems basically in fight or flight 24-7.

Here's what shocks people. When you clean your mouths and calm the inflammation, Your whole body responds. Clearer skin, smoother digestion, deeper sleep, just from getting the mouth back in balance.

Now, When we say cleaning up the mouth, people picture a dental pick and someone scraping barnacles off their teeth. That's not what we're talking about here.

We're not talking polishing chrome, we are talking rebalancing the ecosystem. Your mouth is basically a tiny rainforest with hundreds of bacteria, fungi, and even viruses all coexisting.

Some of these are friendly and some are bullies. some only turn into troublemakers when the neighborhood gets stressed. Cleaning up the mouth isn't about nuking everything with harsh rinses and scraping endlessly.

It's about shifting the community back into a symbiotic state. Think trees peeding at war. When the bacteria are balanced, the gums stop freaking out.

Inflammation drops and your immune system can finally chill. That's when we see the real magic. Less bleeding, better breath, calmer digestion, fewer flare-ups in the body.

Yes, and we can literally measure that connection. When there's oral inflammation, markers like CRP or ferritin light up like red flags. And that's your immune system yelling, I am exhausted!

And when we really treat the mouth, those markers start to drop. I've seen patients' blood work calm down right along with their gums. It's not magic, it's microbiology.

They've found oral bacteria in arterial plaques, in brain tissue from Alzheimer's patients, and even in the placenta during pregnancy complications. So this isn't just a theory, it's proof.

Once the mouth stops setting off alarm bells, your body finally gets to rest. And that's why the patients feel so good after any type of oral therapy.

Their immune system's like, finally, some peace and quiet. One of the biggest flops in modern medicine for me is searching for Alzheimer's drugs. It's so interesting that you mentioned that, because I know two signatures in Alzheimer patients, poor hermones, javelins, and cesarean nucleotum, that are very prevalent in the microbiomes of brain of Alzheimer patient.

And yes, it has its own microbiome, much like every organ function. So while we're highlighting only the oral microbiom, We're going to get into the gut microbiome, but it always connects elsewhere.

And so the buildup of these proteins, the beta amyloid plaque, it's sequestering that. It's actually healing. But what do the drugs do? They try to reduce that and degrade that now we have big problems, right?

So that's not the problem. That's often enough the solution.

Oral-Systemic Connection and Inflammation

How is modern dentistry shifting toward more of a biological or holistic model? And this is super relevant for me because when I was looking for a dentist some time ago, that's what I.

Looking for. And I stumbled upon the dentist who was the dentists for Dr. Mercola. And she was evaluating my oral microbiome in real time, took a swab, looked at it under a microscope, which is what we're going to be starting to do here in the very near future, in a new year.

That to me is so, so powerful and yet so simple, but yet, overlooked. You can see kind of the ecosystem. So when you suggested previously, like the environment is really kind what dictates overall health.

How are we seeing a shift now in dentists or hopefully seeing shift in dentist? Yeah, well, I agree. Traditional dentistry is so mechanical. Drill, fill, bill, repeat, right?

So you come in with a problem, we patch a hole, hand you a goody bag and hope you don't need us again. But biological dentistry, that flips the script.

We're now more health detectives. we don' just ask where the cavity is or we ask how it showed up. Cavities don"t just appear out of nowhere. And same thing for gum disease.

Something provoked them. Was it breathing, was it mouth breathing that was drying out your protective saliva? Was diet feeding these acid producing bacteria?

Were minerals depleted from stress or poor digestion? Or was that a high acid environment making the enamel softer? Even chronic inflammation is already brewing under the gums.

When we have a systemic dysbiosis, there's an imbalance in the gut and the oral microbiomes pushing the immune system into constant alert. Here's the bigger truth.

The mouth doesn't malfunction in isolation. When microbiome loses harmony, salivary chemistry changes, pH regulation breaks down, immune cells get jumpy, and opportunistic bacteria seize the opportunity.

So the hole in the tooth isn't just the starting point, it's a red flag. That decay is just a symptom, the system is the story. That's why biological dentistry is less construction zone and more investigation lab.

We're rebuilding balance, not just repairing damage. And yes, the materials matter too. we're moving away from things that irritate or stress the body like mercury fillings, fluoride heavy products, and chemically aggressive cements and moving that towards a more biocompatible materials that the bodily actually recognizes and tolerates.

If we're working inside one of the most absorbent tissues in your body, everything that goes in there should be supporting healing, not silently contributing to inflammation.

Because the goal isn't just a fixed tooth, it's a healthier mouth, a calmer immune system, and a body that isn' constantly fighting battles it never needed to fight in the first place.

Yes, and you know, that's what makes biological dentistry so fun. It's completely personalized. No two mouths, no two immune systems, nor two microbiomes are the same, so your treatment shouldn't be either.

We use things like salivary testing, inflammation panels, even gut or hormone data to get the full picture. Two patients might both have bleeding gums, but one might have a bacterial imbalance, and the other one may be dealing with immune overload.

And when you start treating people this way, they feel the difference. Dental visits stop being this scary, sterile thing and become this deeper conversation about their whole health.

It's not just, let's fix your tooth. Let's figure out why your body's talking through your teeth. So it's interesting when you mentioned cavities and assessing pH, there are so many tests that you can do in the comfort of your home for pennies or less.

And one is evaluating salivary pH. So I'll do urinary pH with patients, but also saliver pH we do nitric oxide strips for our patients. When you mention looking at cavites and the acidic level is most of us are highly, highly acidic and that sets up the environment for disease.

which drives inflammation which further exacerbates the underlying symptoms and so something as simple as measuring salivary pH I think is so easy and often overlooked but something that you quickly change is that something you guys are suggesting with your patients to take a look make sure it's at you know 6.5 or above Um, seven kind of, are you guys- Yeah, we always encourage patients to check their salivary pH because we need to figure out why that pH is, is out of range.

And so there's a lot of different reasons, but at least here in Colorado, one of the biggest reasons that we see, um, a patient being too acidic is just that they're not drinking enough water and water that's high quality and perhaps their minerals are just way too low.

We're always a big proponent for drinking a lotta water. And mouth breathing is also a very big component that kind of ties into the acidity as well. Mouth breathing just creates this like sort of dry desert environment for all these bacteria that love to thrive in that environment.

If I'm not me speaking, you guys are the specialists, but mouth-breathing is the number one cause of cavities. Yeah. Most people don't even realize that they're doing it.

I was astounded when I read that. Mouth breathers and the reason I guess primarily is mouth breathes require more sugar to stimulate their taste buds.

And so how just by changing how you breathe changes how we taste food. That was so remarkable to me and one third of ADD diagnosis are associated with children who mouth breathe.

Yeah, there's a lot more people have breathing disorders than I think we're even testing for or realizing. And I, think if we had a bigger focus on that, we could solve a lotta health issues with just focusing on how people breathe.

Yeah, breath and where the tongue even is in the mouth and or it should be in, the roof, 80% of your tongue should in your mouth. It should, be instead of fixated in this kind of fight or flight stress, heavy breathing through the mouse and then poor sleep habits.

Yeah. Especially when we sleep, that mouth breathing becomes a very important kind factor in there because that also dictates, you know, how well, deep you're sleeping and all that.

We could do another podcast on tongue posture. Definitely, let's do around two there. Because when I was looking at some of the researches, you can increase nitric oxide production by sixfold when you breathe through your nose, right?

So something, again, free, simple, we just have to reframe how we're living and just kind of get back to our biological roots. If you want to actually just touch upon that, maybe briefly in terms of on your overall health and how are you guys looking at the tongue and assessing things?

it's kind of interesting that you were bringing up the nitric oxide because a lot of the good bacteria that we need to create nitrous oxide lives on that back surface of tongue.

And so if we're constantly breathing through our mouth or using harsh chemicals like strong antimicrobials, whether they're chemically based or even natural base, we are killing a good lot bacteria as well that need create things like nitro oxide.

If your tongue is not basically suction cupped to the roof of your mouth, you're not going to be breathing through your nose properly and getting that good oxygen flow that we need, not only to get the oxygen to every cell of our body, but to create that nitric oxide as well.

Stop using Listerine. It's used for toilet bowl cleaner, people. Yes. And we'll talk about, um, some good experience here, but so in terms of your, your life holds and now kind of shift that way highway into the gut microbiome.

You guys are often saying that the mouth sets the stage. So how does the actually decide whether we stay healthy or end up inflamed? So we really love to talk about the gut microbiome and along with everyone else, because it's the celebrity of health right now, but the mouth, it is the opening act.

So every time you swallow, you're sending millions of bacteria straight down to your gut. Whatever is living up top, that's setting the vibe for everything below.

When your oral microbiomes is balanced, your body's hype team. It helps with digestion, immunity, and like we said before, even the nitric oxide production.

The nitric oxide is so important to keep your blood vessels relaxed. But when this bad bacteria takes over, we feel it everywhere. Your gums, your skin, and even your mood and focus.

Oral inflammation doesn't just stay in your mouth. It's like glitter. After a craft project, it ends up everywhere! It is glitter bacteria, the worst kind.

The mouth gut link is huge. When oral bacteria gets out of line, they release toxins and travel through your system and keep your immune system on constant high alert.

Biological Dentistry and Personalized Testing

That's why the goal isn't to nuke bacteria, it's to create balance. We're seeing amazing results using probiotic therapies that support the mouth and the gut together.

Spore-based strains like bacillus subtilis actually survive digestion and help reset the entire ecosystem. And when that balance comes back, people feel it.

Energy up, inflammation down, brain fog, gone. It's like your whole system goes, okay, I can chill now. Balance is the new bleach. Balance is certainly key.

And I think restoring a healthy ecosystem and it's about healthy ratios and not pushing too much in either direction. What was remarkable to me in terms of your presentation was you were killing some nasties.

I don't even know some of the names of these nastys, but we've adopted some new testing with them. Well, one is World DNA, But there's another one that you had referenced as well.

Yeah, that was the other one. But you were able to attenuate and reduce all of these kind of nasty prolificative pathogenic species just with those two strains.

I know they, no affiliation necessarily, but certainly I like using products that work. So the microbiome lab spore-based probiotics, which we use with everybody because it's also its binding capacity to really shift the healthy microbes, But also binding toxins.

mold, mycotoxin most prevalent in our SIRS patients. Are you guys using any other probiotics in conjunction with that? Because I know you highlighted two during the presentation.

So in the clinic, we do use an oral probiotic that's specifically for the saliva. But when we think about When we think about inflammation, gum inflammation not just as a local inflammation as systemic inflammatory marker, then we

know like we can't just treat it in the mouth and expect that this bacteria is going to get better.

So what we when we first started doing salivary testing, I was like, okay, we need to figure out something to reduce these pathogens that is going to work and not just work for a short period of time, but I wanted a long lasting result.

And so what had happened was I went through a series of products and procedures and nothing was really working. Our patients, because we worked in a holistic practice, Um, you know, we knew we weren't going to use antibiotics because that was going disrupt the GI tract more and even the oral microbiome.

So I started using, um, oral probiotics and I did get maybe some result, but I still had a lot of those high risk pathogens that were causing inflammation and.

I wasn't getting the effect that I wanted. so that's where I came across the spore based probiotic. And we started using those. And so a lot of the, if our patients stayed with our protocol using these spore-based bacillus probiotics, we noticed that we could either dramatically reduce or even eliminate a of those high risk pathogens like.

like AA or the porphomonas gingivalis, the troponolodenticola, and the fusobacterium nucleatum. Those bacteria reduced significantly. And even before those bacteria reduce significantly, our patients were noticing the results themselves clinically.

They noticed they had fresher breath. they noticed that they have less bleeding. It was really remarkable. And I think the really important thing to highlight as well is, you know, with traditional therapies like antibiotic therapies, like we say, we don't want to nuke at all because you'll remove that bacteria maybe for a short period of time, but when and if you continue to be exposed to those bacteria, then you're re-infected eventually.

And so if we can beef up your immune system and create that defense system that is going to fight these bacteria. You get a much longer results and much better result as well for patients.

And I think that's what we're salivary testing is so important because it was really amazing in the clinic how many people thought they were okay or maybe just had a little bleeding when actually when you looked at their bacteria, they weren't in much worse shape than they actually had even realized because with periodontal disease, There's no actual pain or other symptoms until maybe it's getting too late or we're in desperate mode to do something about it.

That's a good opportunity to segue into salivary testing. Saliva is such a powerful diagnostic tool. I know you mentioned one test previously. How can something so simple give us early clues about inflammation or disease risk?

Well you know, saliva is like your body's group chat receipts. It tells on you. You can try to act like everything's fine, but your saliva's out there spilling all the tea.

it carries immune markers, hormones, inflammation signals, even microbial DNA. It's literally a snapshot of what's happening in your mouth right now. And that's exactly what it picks up on those changes before you even feel the symptoms.

Before that cavity, before the fatigue, and before your doctor says your labs are off. So instead of poking veins or waiting for problems, we can look at a tiny saliva sample and go, Your body's low-key fighting something.

Let's handle that before it turns into chaos. That's real prevention. Exactly. Think of salivary testing as a health detective that doesn't need a needle.

Instead of guessing what's happening under the gums, we can see it in real time. We can measure when the bacteria are active, how aggressive they are, and whether they've triggered inflammation that's spreading beyond the mouth.

We've found red complex pathogens, the heavy hitters tied to gum tissue and destruction in cardiovascular disease and even pregnancy complications. And people who swore their gums were just a little puffy.

No bleeding, no pain, No dramatic symptoms. On the surface, they looked fine, but underneath the biology was shifting fast. It's not just catching the bad guys.

Saliva shows us beneficial bacteria too. The peacekeepers that protect the tissue, they calm inflammation, support nitric oxide production, and keep the pathogens in check.

So when those good microbes disappear, the troublemakers take over and that's the microbial warning sign that most people never see. When you test saliva, you're not just checking oral health, your assessing immune stress, metabolic risk, gut oral dysbiosis, hormone shifts, and the body's inflammatory response, all from a simple spit sample.

It's basically Google Analytics for who's there, what they're doing, how they are impacting the rest of the system. And here's where this gets powerful.

Once we know the exact bacteria and level of inflammation, treatment becomes more personalized. Not generic cleanings, it's actually targeted care. We can use ozone, lasers, of peptides, probiotics, prebiotics, nutritional shifts, and biocompatible materials to rebuild a healthy microbiome.

Instead of just scraping surfaces, it's precision dentistry guided by data, not guesswork. And when those numbers start improving after treatment, that's the ultimate mic drop.

It's your body saying, thank you for listening. That's from the Myperiopath test. Is that the one that you're referencing? We've used my periopal test.

There are several different companies out there currently. We use Simply Perio, but there's a lot of good companies. Okay. Cause that's the one we use.

But I'm definitely eager to try that. The thing is, and it's so relevant, obviously, what it is like one more test, right? The stool microbiome, one, more tests, the food sensitivity, One more, test the total toxin.

One, More tests. Um, it almost like we're death by tests where inundated. So. curiosity and perhaps you're biased, right? But on that ranking, like, is that the first test someone should take?

Maybe even more so than a blood test? You know, I guess it depends all on what, what's the patient's chief complaint? I think a lot of times we get into these situations where it's like protocols and do this first, that second, this third.

But when we really listen to the patient, nobody knows their body better than themselves. And so a lot of times it does, you know, their complaint or their symptoms that they're talking about.

A lot Um, and so in the end, we very well may be doing salivary testing or biocompatibility testing, or, you know, the other big range of tests that we have access to.

But I think that's what a lot of people need is just somebody to listen to them and actually hear what they're explaining. Cause I, think traditional dentistry, I'm sure it's the same in medical field.

They're not, patients are not being heard. You're absolutely nailed it. I think it is super contextual, but I it's probably the most overlooked piece in modern medicine to many capacity.

Many are not connecting the dots that there's something going on in the tooth and that's leading to pain elsewhere in And when you remove something, there's also a consequence too.

So I want to get into wisdom teeth in a minute here. But for me, when I had my wisdom tooth removed, and that's a whole debacle, which was malpractice at the time, but we're doing that.

Salivary pH, Mouth Breathing, and Tongue Posture

I think often just because rather than context. Teeth, I didn't know at that time but now it's connected with small tests in her heart. After my was in teeth removal, developed arrhythmias and severe GI issues.

Low and behold, no one was making that connection at the time. Certainly not the surgeon who was quick to do it, but left a piece in the tooth valve and put on, put me on three rounds of antibiotics and painkillers just shy of morphine for three weeks.

And then I went to my dentist to, uh, just get a second meeting. Hey, something's still not right here. I was, I think only 12 at that time or 14 maybe, X-ray and sure enough, a pieces of the teeth was still there.

But yet he said there was just infection, infection infection. No, it was poor operation. And he didn't have the, okay, maybe let's take imaging and see what's going on.

Maybe I didn' perform this properly. And so now we're setting people up for long-term consequences by operating in the mouth or by cosmetically enhancing without sometimes recognizing the trade-off.

But what are some everyday habits that harm us or can heal us in terms of the oral microbiome? You know, like you said earlier, each tooth is an individual organ, and I think that that's super important to keep in context when we're thinking about doing any kind of treatment in the mouth, just kind shifting a little bit.

A clean mouth has gotten totally twisted. Somewhere along the line, we had decided that if it foams, burns, or tastes like a hospital, it must be working.

But that's not the full story. A healthy mouth isn't squeaky clean, it's balanced. So when we go in there every day with an antibacterial toothpaste, mouthwash, or tongue scorching rinses, that it is not like you're taking out just the bad guys.

You're wiping out the body's defense team too. It's like nuking your garden because you saw one weed. Even natural stuff like clove oil or herbal rinces, I love them, but If you use them every day, you're still disrupting that ecosystem, so killing is not the goal.

Yep, and it's not about killing the bad bacteria. It's about coaching them. Like, let's get the good guys back in charge. And don't even get me started on floss.

A lot of store-bought floss are coated with PFAs, forever chemicals. Yep, the same stuff that they use in nonstick pans. You're literally flossing with Teflon.

That's not exactly the vibe. In toothpaste, we've got fluoride, S, titanium dioxide, ingredients that can irritate tissues or mess with your microbiome.

Fluoride can help enamel, sure, but it's without a cost. Exposure messes with your thyroid, microbial imbalance, among many other systemic implications.

And that's why we love hydroxyapatite. It strengthens the enamel naturally and no weird side effects. So your mouth isn't a war zone, it's a community.

We need to feed it, hydrate it. Respect it and bottom line, It's going to pay you back with strong gums, fresh breath, healthy teeth, zero drama. So that was something you just came across too, in terms of flossing, because obviously that's healthy practice, right?

To floss when you eat or after you rather. Does the, what are the one that I use that you find Walmart and Amazon, obviously the floss picks, I guess.

Yeah, like a floss folder. They're little green ones, now they're flavored with mint or something. I just try to find no additives. Is that one also covered and coated with PFAS or Forever Chemicals?

Usually, usually if they're slippery, those usually have the PUFA. So anything slippery if it's getting in there really easily, we don't like to use those.

I just like a nice woven floss or a water floss, or something like that. Not a real big stickler on what people should use to clean the in-between surfaces as long as it doesn't have any chemicals and we're accomplishing the same removing and disrupting that biofilm.

Uh, I think that's what should be using. And you know, something we don't really think about with those floss picks as well is they give you this much floss, right?

So if you're flossing a tooth that has bacteria and then you are flossing the rest of the teeth, are you just spreading that bacteria everywhere else?

Oh boy. Probably. You just think what I do. And again, forgive my ignorance is I thought about that. So what do I, do is like, I'll take my hand and I I use my hands to like whatever I.

Wipe it. Or use a napkin and be like okay, and then I go to the next one or sometimes I will use two placards. Placards was the one I was referring to.

Yeah. PFOS does it? I don't know specifically. I haven't really looked into that specific brand, but a lot of them do if they're slippery. I don't think it's slippery, but that was, when I saw it, I was like, Oh my gosh.

Because so my partner, she'll use the one that's super long. And so you're not spreading the bacteria as you just elegantly alluded to. But for me, it just, won't do it unless I have a placard.

Is that to my detriment? Do I really have to revamp my routine to make sure I get that other one? That comes out of like the thing where I got to stretch and then.

It's so funny, you know, people are always concerned about, I'm going to spread bacteria with my flask and whatever. But realistically, if we just strengthen our immune system, that's really the biggest key because we're going be exposed to bacteria, whether it is from our partners or our kids or our pets and so that's kind of the whole point of biological dentistry is just making sure that when we do want to decrease those bad pathogens but we also want a booster immune system that way when you do come into contact with these pathogens your body is able to fight them off.

That's what our immune systems was designed to do. When you said sharing the bacteria I mean we are You and I are 99.9% identical in terms of genetic compatibility, but microbiomes are vastly different and we see that even with identical twin studies.

And so what's interesting is we now share a very similar blueprint or personalized signature within our microbiome with our partners. So you do have to be mindful of who you're kissing or who your choosing.

Totally. What are some misconceptions about oral care? So let's start with the classic, since we were just talking about that. As long as I brush and floss, I'm fine.

But you can brush like a maniac and still have inflammation, infection, or imbalance, and the microbiome is off. Healthy doesn't mean squeaky, it's stable.

So the mouth's like the coral reef. When it is balanced, its colorful and alive, but when we strip too much,

everything, the good and bad, dies off Yep, and can we talk about guilt culture and dentistry for a second?

People often come in feeling like they've failed because their gums bleed. And it's not about blame, it is biology. Diet, stress, hormones, sleep, they all play a role.

Sugar and processed foods feed bad bacteria, sure, but so does chronic stress. The fix? Eat real food, think fermented stuff like kefir, sauerkraut, miso, even a little kimchi.

That feeds the good guys that protect your gums. Yeah, and if you are taking probiotics for your gut, guess what? Your mouth is benefiting too. The gut and the oral microbiome are on the same team chat.

When one's happy, the other one calms down. So instead of thinking I need to brush harder, try thinking, I needed to live softer, sleep more, stress less, eat better.

Your gums are going to thank you. Bleeding, bad breath and dry mouth. Those aren't moral failures. They're just your body whispering, Hey, we need a little tune up.

Let's listen to it. Bringing back the tongue for one second here. If a patient comes in, if there's scallop on the time, If there are ridges, white fuzz, things that don't look right.

Are you addressing that and are you identifying like this means this, this mean that, and correlating with kind of their teeth? Yeah, exactly. So a lot of times when we ask people, do you snore or do, you suspect that you have sleep apnea?

Most people will say no. But when they look into their mouth, we kind of see a different story. So if we do see that those scalloping, scalped lateral borders of the tongue, that's the perfect sign that.

You may be have some sort of sleep-related breathing disorder. Or if you grind your teeth, we used to think that grinding your teats was just something that people did because they were stressed.

But now we know it's a sign that your, your brain is saying, Hey tongue, move out of the way.

Gut-Mouth Microbiome and Probiotics

I need more room to breathe. Um, so. scalped borders of the tongue, narrow palates, maybe no room in the airway, larger tonsils. Those are all symptoms.

Something is going on and we needed to dive in a little bit further and, you know, a sleep test may be indicated. Yeah, the tongue can tell us a lot. I mean, even things like geographic tongue, can you tell you about nutritional deficiencies and among many other tongue related issues.

Yeah. A lot of times people live with geographic tongues and just think it's asymptomatic. But if we had spots that are moving on, let's say our arm or our leg, we wouldn't just, think that it is asymptotic.

It's your body telling you something else is going on. The body doesn't lie. It's interesting you suggested teeth grinding. That's been afflicting me for a long time and going back to the wisdom teeth and then GI issues and I had assumed parasite for long.

My story is kind of unique in that regard, similar to almost all my patients where I was debilitating GI for more than a decade, went to Mayo Clinic, diagnosed with lymphocytic colitis.

No really offering of, of healing other than they suggested taking modium three times a day, which I had to abstain because of severe abdominal cramping after a couple of weeks, but not addressing the root again.

And teeth grinding, I often associate with parasite, often very goes undetectable in stool tents testing. But I see that

as, as actually far more common than I previously even understood what my colleague is doing.

She's injecting Botox to prevent the, the error. teeth grinding, but that's still not necessarily fixing the problem. Obviously, that leads to the NHPA balance and immune regulation further still.

But that is how I'm thinking now in terms of teeth riding. Are you guys suggesting mouth guards? And if so, what are good ones that people can find that don't cost $600,000, whatever $2, 000 at this point?

So, mouthguards can be pricey, it is equivalent to an orthotic that you would wear on your feet right in your shoes so you want to make sure that your getting a really good one and one that's custom fit to you because if we place a poor orthotic into your mouth it's going to throw off your joints in that disc in you mouth so we want not only that you have the right fit, but also oral appliance that is going to address your specific needs.

So there's lots of different appliances out there, you know, for bite or for sleep or whatever the case may be, we want to make sure it's specific to that patient.

There's a lot of these over-the-counter bite appliances that just really can cause more damage than good. And the temporal mandibular joint is not a good place where people can do surgery.

That's super easy and quick and nobody likes having TMJ pain. It's just not fun. Okay. So you have to kind of go to your biological dentist probably to get one.

My concern was the material they were using, but I suspect if you're in the biological dentists office, you are sourcing healthier natural material. Yeah, so I would always recommend a patient get a biocompatibility test.

So we use bio comp labs and they are based out of Colorado, but it's going to test your bi incompatibilities for every dental material on the market. And so what's good for one patient may not be good.

For another. and so if we can make sure that the material that whatever, whether it is a bite appliance, a filling material, or even a profi paste. We can make sure that your body is going to be, those materials are going be safe for your.

Do you know how the test assesses that? I mean, that's to me, super novel, which is super brilliant. That's the epitome of personalized medicine. Yeah.

It's, it's a blood test. Hold on one second. Yes, and it's really cool once you get that report for that biocompatibility test. You get like a 300-page Bible, I like to call it, because it truly does give you more information into how compatible your body is to all these materials.

So if you're getting a bite appliance, you can figure out if the material in that bite appliances is going to be compatible with your system. Very cool.

Well, we'll definitely have to look into that further. I was just curious kind of how if you're testing the reactivity of specific ingredients and how the immune system Reacts, but, um, needless to say, that's, That's interesting.

Okay. Shifting into probiotics. How are probiotic therapies changing the future of dentistry? I know you mentioned one at the beginning, an oral one. Um, I'm not sure if that is a dissolvable one or ones that kind of you liked.

I now we've mentioned the certain strains, bacillus subtilis or bacilitis clausuli, coagulans, et cetera. How are you guys incorporating probiotics and how is that shifting dentistry?

Yeah, totally. And we use a couple of different oral probiotic just depending on each person's bacteria. But, you know, for years dentists was like, let's kill all the bacteria, all bacteria are evil.

and now we're like oops, turns out we need some of those. So the goal now isn't sterilization, it's civilization. We're

learning how to build peace between microbes instead of starting wars.

And that's where probiotic therapies come in, especially the spore-based ones like bacillus subtilis, bacilus clausii. They're like the Navy SEALs of probiotics.

Tough, strategic, and long-lasting. They make it through your stomach acid, get to the gut alive, and start building balance from the inside out. And that's when the oral microbiome follows suit.

You can't have a healthy mouth with an inflamed gut. They're roommates sharing the rent. Yes, exactly. We've seen this in the data in clinic when patients take spore-based probiotics like the microbiomes labs.

Their salivary inflammation markers drop and their gums don't bleed, their breath improves. These little microbes really rebuild the neighborhood. They crowd out the troublemakers and restore communication between cells, and they tell the immune system to chill out.

It's like turning a chaotic city into a thriving community again. That's the future, not killing bacteria, but training them, supporting them and creating an ecosystem where your body can actually thrive.

And honestly, it's kind of poetic. We've spent decades fighting bacteria and it turns out they were just trying to help us the whole time. And I kind of think that that's what's different about the spore-based bacteria is that these bacteria, we're not just throwing bacteria into already inflamed state, but we are putting bacteria in that can actually change that environment where the other bacteria that we need can grow and thrive and make a healthy.

that and oral microbiome. So as far as oral probiotics, we've used many different brands throughout the years, but dental flora is one we really enjoy for certain pathogens, and I think we use probiora as well for other pathogens that we have found in the mouth.

Ithink one of the important things to highlight too is once we understand what bacteria is in our mouth, then we can choose a better probiotic. that will specifically address the patient's needs and concerns because we can throw a bunch of different probiotics or strains in there and they may not do what we want them to do.

So if we're not testing, we are just guessing. Yeah, I see that all the time. I like to test and treat. It's super simple. There's no reason to guess anymore with our modern tools and diagnostics, how that has evolved.

The suggestions that you speak of, i see it through biocide and botanicals, which are ones that Coincidentally, we're already using. What's interesting is in terms of the spore-based probiotics, that is something I've been using in practice with tremendous degree of efficacy almost for everyone across the board to enhance treatment outcomes very effectively, very quickly, and very safely.

And it's crazy to me that I often hear some practitioners say, you know, probiotics is nonsense and you're not going to shift things. I mean, we don't see that in clinical, right?

We see things move pretty quickly once you restore a healthy ecosystem and then you can find the synergy of the gut bugs. And, it is interesting that you guys suggest not to kill, but to support and balance and cooperate.

But I love your analogy. This whole conversation has been so enlightening. We live in this kill mentality, these pathogenic one-quote bugs, Provide immune surveillance.

They keep our immune system robust and strong, much like exercise. If you don't use it, you lose it. Right? So the same things, the goal is not to create sterility.

The goal, as you said, to restore balance. I think what are some, perhaps since we're approaching on time, what're some of the most important takeaways for our listeners?

Okay, so just like we were talking about, you know, earlier, it's just not to sterilize everything. Those harsh alcohol

rinses, the bright blue detergents, these foaming chemicals that promise to kill 99% of germs, they don't discriminate.

Saliva Testing and Targeted Oral Therapies

They're going to wipe out the beneficial bacteria and they're gonna dry out your tissues. they are just no good. So we don t want to use those. We want to keep that beneficial bacteria because they protect your tissues that regulate pH, they support nitric oxide, and they also keep those bad pathogens under control.

When the good guys are gone, the bad pathogens, they rebuild faster, stronger, and more aggressive. Balance beats brutality, so if it burns foams or tastes like a chemistry lab, it's not helping.

It's disrupting. Little roommates aren't parasites. They're part of your immune system. Give them real food, color, fiber, fermented stuff, minerals. If your diet is nothing but sugar, energy drinks, and coffee, the bad bacteria are going to throw a rave.

And the good ones are gonna starve. We want healthier gums and less inflammation. Feed the team that protects you. We always want to encourage breathing through your nose.

Mouth breathing is like leaving a desert sun lamp on inside your mouth. It dries everything out. The pH drops, oxygen drops and the bacteria that love chaos move in.

So nose breathing keeps everything moist and balanced plus it boosts nitric oxide which is nature's antimicrobial superpower. So just close your mouth and use your nose.

Also, hydrate. Hydrate like a grown-up. Saliva is your mouths personal bodyguard. It delivers minerals to enamel, it traps pathogens, buffers acid, and calms inflammation.

But if you're dehydrated or living on ice lattes, your saliva can't protect you. Water, add minerals, to make it stronger, stronger enamels, less gum drama.

And we also want to pay attention to what we put in our mouth, not just food, but products. So read the labels. If the ingredient looks like a chemistry final, your microbes are not going to love it.

Look for clean pace, mineral rich formulas, microbes. microbiome-friendly rinses and ditch the harsh chemicals. Let's talk about brushing real quick. Use a sonic or ultrasonic brush that will do the job for you.

It breaks a biofilm gently without sanding off your gums. Aggressive scrubbing doesn't equal clean, it equals recession and inflammation. So think precision, not demolition.

Yeah, it's really not that complicated. It's just being consistent. So healthy mouths aren't sterile, they're just balanced. And it does take time to get to that balanced symbiotic state.

so it is not going to change overnight, but your body will respond pretty quickly. Yes, be kind to your microbes and they'll return the favor. That's the oral glow up, the one you can't get from a 10 minute cleaning appointment.

So those are all brilliant. I want to get very kind of specific now in terms of products that maybe you found historically to work very well. Cause patients are always asking, okay, then what do I use?

What I do? And let me start with myself. Because we have a whole oral healthcare, oral health routine. So tell me what I'm doing right, what am I doing wrong, when I can do better.

And lemme suggest a couple of product that I've historically used, maybe some other products, that would be beneficial cause I know you mentioned hydroxyapatite.

My concern is a lot of these products will have sweeteners in them. Sometimes xylitol can be good. I was speaking with Dr. Burke, interestingly, and so we were talking about how to eradicate, quote unquote, some of this pathogenic screens.

And my suggestion to her, which she found very interesting was, using xylitol almost like as a parameter to see if you're reacting to that. If there is a high degree of antimicrobial action in the mouth, you usually will have an adverse reaction to something like xytitol.

But often enough, some of these other sugar alcohols which are not often digestible can really cause problems and disrupt the GI for people. So people will react to xylitol or stevia or fill in the blank with some of these other ones.

But in terms of my routine, so what I like to do is in morning, wake up, I will get some castor oil. or coconut oil that I'll kind of cycle on and off, but let's say castor oil, black castro oil from, I think it's heritage farms.

It's in the dark glass bottle. I will swish that for I don't know, three, five minutes in a morning, spit that out. Then I, will tongue scrape usually with stainless steel.

then I brush with a, think its Sonic, one of the, the brushers, uh, toothbrushes that vibrate and I use. Have you heard of this brand, Uncle Harry's? I think they're out of Oregon, I believe, if I'm not mistaken.

Oh yeah, uncle Harry toothpaste. Some of the ingredients here, which is interesting because you mentioned not tequila and clove, so what are the ingredient?

Purified water, bentonite clay, calcium carbonate, sea salt, alkalizing, ionic minerals, mustard seed, initial menthol, pure essential oils, peppermint, eucalyptus, clover, wintergreen and oregano.

So for me, that's a long list of ingredients. Um, no, and there's, a lot of those natural antimicrobials. So if you're using it, probably, okay. Beninite clay, I'm not.

a huge fan, just because if we think about what we're using that for, it's a binder, right? We're, using it to draw that, draw out toxins and whatnot, which can be an ideal ingredient if that's what you're trying to do.

However, if you are thinking about using daily, they can tend to cause some xerostomia. And so, maybe not as a daily toothpaste, but if your wanting to use that to treat, you know, a certain condition or whatnot.

You know. Certainly on a short-term basis, probably okay. Find something that has very minimal ingredients. We tend to, for just an everyday regular toothpaste, we like Ricewell.

It doesn't have a lot of ingredients in there. So xylitol, if you've tested and you have high streptococcus mutans, that's the bacteria that causes tooth decay.

Xylotal exposure is going to help reduce that specific strain of bacteria. You know, sometimes when we test people get cavities, but a lot of times the bacteria is not the issue.

And so that xylitol may not be an ingredient that you actually need. I do like, I like using a toothpaste that has hydroxyapatite to help strengthen that tooth.

But if we also think about strengthening the teeth. it's not just what kind of toothpaste you're using. A lot of times people's vitamin D is really low, and so if your body is not utilizing those fat soluble vitamins that the D and the K to help draw that calcium back into the tooth to make your tooth stronger, it doesn't really matter what toothpaste your using, you need to address the systemic issue.

So, toothpaste are great. We'll find one with minimal ingredients, You know, in a low dose, probably okay if your body's compatible with that. But yeah, find something with a hydroxyapatite, definitely fluoride-free.

I also noticed you mentioned you do a little bit of oil pulling in the mornings with some coconut oil, castor oil. remove plaque and all these things and I do like oil pulling if it's done the right way.

Oil pulling is best. The best results come from vigorously swishing for at least 15 minutes with that oil. So that's kind of difficult for most people to do.

If you've ever tried oil-pulling, the muscles of your cheeks get really tired real quick. And so if you're talking about vigoriously swushing, that when you get the best result as well.

Daily Oral Care, Products, and Habits

Yeah, I have had some patients though, really reduce their red complex pathogens with just oil pulling, but they're very clean diet and very committed to it.

Committed. Yes. And then we also, we do recommend tongue scraping as well as definitely using a woven floss or like cocoa floss is something that we like to give our patients or water flossing.

The, is a water pick critical? You know, I always just say whatever tool is easiest for you to use. So if you're good with flossing, just stick with that, make it easy.

But a lot of people do hate flushing and it's just a chore. If a water flosser is great. I like the cordless water flossers. You could just use them in your shower.

It's less messy, but yeah, it was just personal preference. As long as we're accomplishing the same thing. What about active wow? That's one that I've historically used too.

It is activated coconut charcoal, minimal ingredients, but again, coconut, charcoal. Obviously some people use that to whiten their teeth, But thoughts on that in short-term use?

Yeah, you know, short-term use, I definitely think that there's a space for charcoal, the bentonite clays, those kinds of types of binders. We certainly do want to do that.

Use those in the right space, right? So if you're actually trying to remove a lot of toxins or let's say your bacterial load is high, um, You know I don't think, that that's, uh, a bad thing to, do but, just being cautious and not overusing it, our mouth really dries out before you even notice it.

So before, you feel like you're thirsty or your lips are sticking to your teeth or, your tongue's sticking into the roof of your mouth. Your mouth was actually starting to dry out far before that.

And so a lot of times, I think some of these products get overused and people don't even, notice the changes that they're making in their mouth Question in terms of, really quickly, the myperiopath.

So when we address some of those strains, effusive bacterium nucleotum, periodonticum. If those are high, or even gingivalis, sputigena, if some are, those species are higher, are you correcting that only just with the, obviously we are addressing lifestyle, but are your correcting it just the spore-based probiotics?

So in our research, we did do clinical debridement. So whatever the patient needed, whether it was a traditional cleaning or it with scaling and root planing, We did, do debrightment only.

And then we treated with the probiotics and we, did get a really good result. However, in my clinical practice, we know that there's other tools that we can use to reduce that bacteria, maybe a little bit quicker to get the results we want.

So outside of the research project, I typically use ozone, whether it's ozone gas or ozone water. And I usually do some sort of laser therapy in conjunction with the Debray-Mitt and the probiotics because I've found kind of a multi-

layer approach can help us get a quicker, better result where the patient can start feeling better and we just get healing a lot quicker.

The same goes for any sort of the streptococcus species I would presume. So the Streptococtus mutans, the thing that I have noticed the best to reduce that is one if we can address diet because that strap mutants really likes sugar.

So if can get the diet in order that strut mutans will go down as long as we're increasing that good bacteria. getting a lot of the prebiotic fiber in there.

The shrub sanguinus, which is our good bacteria that helps fight the strut mutants, that will actually decrease the strep mutans as well. So a of it is just diet-based as far as the Strut Mutants goes.

Microbiome Labs has another product that we really like to use. It's called make-a-pre or make a pre-DF, the dairy-free. We've noticed that, we can get that good bacterial to boost up really high in a pretty quick a month or two.

Yeah, with that Megapre product. Are you dosing that then the same time you're doing it as four base, which is kind of at a meal, one cap twice a day, something like that?

I think the dosage on the Megappre is different. I believe it's four caps, I could be wrong on that, but. Could be six. It's, yeah. Um, so there's a lot of different products that patients can use or go out and buy.

But I really like my patients to try and adjust their diet. And diet, we can get a lot of good benefit from our diet and our body will heal if we fix our diets.

So that's not going to change overnight. I think we should use the probiotics or prebiotics or whatever supplement or tool we're using as a bridge to get where we need to be until our, diet is much better.

Nutrition is going heal you or it's going hurt you. Exactly. Yeah. Last question, I guess then, cause you mentioned ozone. Um, and obviously there's a huge now bandwagon on the benefits of ozone, but this is not the new kind of box has been used for, for a long time now with the hydrative efficacy.

When you said oral consumption and like drinking ozonated water, is it safe to do daily? Will that shift your microbiome in sometimes negative fashion or, or when is too much?

I haven't, so ozone is. Ozone's great. I love ozone. And I have an ozone machine myself personally at home. Like to use it for a lot of different things, but I haven't seen it personally been overused.

As far as somebody using it, for their body, I've seen a lotta really neat things like people drinking it to control their H. pylori or fix those stomach ulcers, things that some people do use ozonated water as a mouth rinse.

And I've seen bacterial levels are pretty stable, even though I'm not a big fan of using an antimicrobial rinse every day. The patients that I'd had that use ozone water daily, their high risk pathogens are usually pretty low.

So I can't say that. I know. that their good pathogens are necessarily high either. So I think it's maybe a case by case basis, but I'm a big fan of ozone, lots of different applications and uses.

It's very safe. For the most part, our body loves it. You know, I'd recommend it last question. Well, second to last. The root cause, which really kind of begin to really shed a lot of light on how the tooth and Oral health can impact cardiovascular risk.

Anything there that was erroneously said? Cause I know there's been a lot of controversy after that came out. But you're talking about the root cause movie.

So I have a traditional dentistry background. And when I first saw the movie, I was a little suspect and I'm like, this

is not what we were taught in school.

I don't really know about this. Is it just a bunch of hoo-ha and well, you know, where are they coming up with this? But the more and more I practiced and I started seeing the results, there really is something to it.

Root Canals, Biocompatibility, and Closing Thoughts

There's something about the dental meridians that really are in line with what our body is tying us. One of the bigger things that I hear a lot about is root canals and their relationship to, especially in women, breast cancer on, you know, those upper molars.

And I really didn't get it, but when I started looking at my patients who had history of breast cancer and either seeing that correlation, that those patients, they did have history.

Of root canal treatment or having the tooth removed because there was infection there. It really was a strong correlation. Big majority of those. And so I'm not saying that, you know, everyone who's had a root can now should necessarily get them out because replacing the two, there's not really a a bunch of excellent options at this point.

However, I do think it's something to consider, especially if you have a high risk, if your high-risk, have family risk for breast cancers or some other certain conditions.

I think dental professionals need to look closer before they're just recommending people get root canals. You know, willy-nilly, you know if have an infection in your head, we definitely don't want to keep that there, but I don' know that root canal are the answer either.

not get a root canal in my own mouth if it ever came up, but I do think we need to look closer at that. Yeah, that's what I've been suggesting with all my patients to probably get a second opinion and avoid if possible, or remove the tooth.

Nowhere in medicine do you allow a dead organ to remain in the body. And so instead of replacing the ceramic, it's interesting that you suggested the biocompatibility.

I suggest everyone to seek that as a resource. This has been super enlightening. So I genuinely appreciate your time. Last question I always end every episode with is, If you guys could have one superpower, what would it be?

Ooh, x-ray vision. That's a good one. Yeah, that's good question. I don't know, knowledge probably. I feel like knowledge is our best superpower and I think the more knowledge we have, the better we can do for others and for ourselves.

This has been absolutely a genuine pleasure. Thank you for your time, ladies. Where can people learn more and find you? You guys can find us at the Mouth Lab on all of our socials as well as our mouthlab.com website and you can us there for any reference or any questions that you may have and probably on LinkedIn somewhere aswell.

Thank you so much for inviting us. This was great. This has been a wealth of knowledge, so I appreciate your time, all the recommendations. I suggest everyone to kind of seek out and keep it close to what you guys are up to because when I first heard you guy speak and what have you been able to accomplish with natural medicine, natural nutrients and the body's ability to heal and changing obviously the lifestyle is certainly profound.

We're looking at the oral microbiome now with all our patients and certainly doing testing when when prudent. So I will keep a close eye on you ladies and definitely reach out for all my questions as well.

I appreciate your time and expertise. Awesome. Thank you so much. Thank you, ladies. Bye bye.