

## Full Episode Transcript

With Your Host

Allison Watts, DDS

Welcome to *Practicing with the Masters* for dentists with your host, Dr. Allison Watts. Allison believes that there are four pillars for a successful, fulfilling dental practice: clear leadership, sound business principles, welldeveloped communication skills, and clinical excellence. Allison enjoys helping dentists and teams excel in all of these areas. Each episode she brings you an inspiring conversation with another leading expert. If you desire to learn and grow and in the process take your practice to the next level, then this is the show for you. Now, here's your host, Dr. Allison Watts.

Allison: Welcome to *Practicing with the Masters* podcast. I'm your host, Allison Watts, and I'm dedicated to bringing you masters in the field of dentistry, leadership, and practice management to help you have a more fulfilling and successful practice and life.

All right, Sam, I'm going to officially introduce you. For those of you who don't know him, you guys are in for a treat tonight. I know several of you guys already know Sam. Really, welcome, and thank you so much for doing this. I'm excited to have you here tonight.

Sam Low, D.D.S., M.S., M.Ed., Professor Emeritus at the University of Florida, College of Dentistry. He's an associate faculty member of the Pankey Institute with 30 years of private practice experience in periodontics, lasers, and implant placement. He is also a Diplomat of the American Board of Periodontology and past President of the American Academy of Periodontology. He is a current Board of Director of the Academy of Laser Dentistry.

Dr. Low provides dentists and dental hygienists with the tools for successfully managing the periodontal patient in general and periodontal practices and is affiliated with the Florida Probe Corporation. He was selected Dentist of the Year by the Florida Dental Association, Distinguished Alumnus by the University of

Texas Dental School, past president of the Florida Dental Association and past ADA Trustee.

Wow. I'm honored to have you here. I've got a couple hygienists on the line and the dentist that works with me and several people are just excited to hear you tonight. So, welcome.

Sam: Thank you, Allison. We just saw each other not too long ago and we had an excellent conversation then and I have made a decision a couple of years ago to reinvent myself and move in a couple of other different directions and attempt to really codify some of the areas that I had been emphasizing before.

> Anytime I have an opportunity to be able to have a dialogue notice I didn't say speak to—but have a conversation with my fellow colleagues in how we make this dental profession better for our patients, I always do.

> I'm somewhat warmed up since I got up at 5:00 this morning and actually did a 6:00 a.m. webinar on lasers for the international community, from Turkey to Japan to China to Australia to Romania, and who knows where else. So this has been my webinar day.

- Allison: Wow.
- Sam: I took a nap by the way, so I'm ready for you.
- Allison: You're refreshed for us. That's great. Well, do you have anything to add before...? I was going to start us off with a question. Is there anything with the bio that you wanted to add or anything else you wanted to share before I begin the questions?
- Sam: I think it's critical that one always gives their conflict of interest before we start because there may be, somehow the conversation may lead to some brand names or products and I

think in all fairness with insuring that we have ethics in our profession that we all know that.

I am a part owner of Florida Probe Corporation. I helped develop Florida Probe and our new product that's out there now which is a voice actuated system called VoiceWorks. I am a consultant to a startup company, actually it's not a startup company any longer since we have 2,400 dentist accounts. That is PerioSciences, which is an antioxidant gel toothpaste and rinse. I also do consulting with Biolase in which I do advanced training for them, especially in the area of periodontics, closed flap, laser with Waterlase lasers. Then lastly, I do some work with Philips Sonicare. I'm on their advisory board plus I help them with development of products.

I would add a fifth, recently, I am I would say probably more now that it's formal, a consultant with Hu-Friedy looking at their present and their future products. So my career runs around three different things right now: consulting, speaking, and I still see patients every Wednesday at the College of Dentistry where I primarily do laser with periodontists, prosthodontists, and orthodontists.

Allison: I can't wait. I do want to talk a little bit about the lasers but I did have a few things. First, I want to say to everybody, Sam is great with questions. I'm going to be asking questions for any of you who haven't been here before. This will be more like a conversation but he would welcome you raising your hand if you have any questions or comments. Just push \*2 and I'll see your hand raised and I'll call on you as soon as I get a chance to create a little break in the conversation.

I wanted to start if it's okay, Sam, with some of the things you talked about at Pankey that I thought were really exciting. You talked some about creating a niche, the way that I heard you say it was that I want to be—I took it in as, wow, that's exciting,

I want to do that. I want to be the person that people think of and that people come to for oral health, total oral healthcare. And that periodontics is actually a pretty untapped niche. I wanted you to say a little bit about that and just as much as you want to say about it.

Sam: Sure. Well just about the time, sometimes I think periodontics is old hat then it raises its angry head again and becomes important. Maybe it's the fact it never really went away. One of the areas that I truly emphasize in the practice of dentistry, and throughout this, yes, I'm a periodontist but I've always considered myself to be a dentist first. I practiced general dentistry before perio school. I'm a vibrant member of AGD. I do a lot of continuing education programs for them. In fact, I just finished a laser program for them at our national AGD meeting in San Francisco.

> There was an area that I also am involved in now, I never intended to go into it, and that is in-office consulting. Where I literally go in and spend a very little time with a dental office and get them oriented into periodontics, especially with the hygienist.

From that, I created a concept that is called "developing a niche." We are in a way in competition. That competition is not only with our fellow practitioners, but it's also in a competition with actually getting patients to see us. We have data that clearly demonstrates that patients do not come to see us like they did even 12 to 14, 15 years ago. There are reasons for that.

I will always mention that I'm a huge Malcolm Gladwell fan and sometimes I believe that when we look at ourselves, we're wondering, is there something I'm doing wrong? What's going on? I used to have 25 new patients, 30 new patients a month. Now I have 15 patients a month. Some of my patients are not

staying with me. They seem to be titrating over to a corporate practice or to an insurance practice. What am I doing wrong?

Well let me assure you that none of us are doing anything wrong, it's just that we're doing the same as we've always done and the world is changing around us. So we have to create somewhat of a uniqueness of a niche. This doesn't mean that you put on false airs. You don't represent something that you're not, but practicing comprehensive care and presenting it in a way that is value based, I truly believe will attract patients.

One of the areas that, Allison, that you mentioned that I think is a sleeping dog out there—a good dog—that is periodontics. To give you some numbers, periodontitis and when I say periodontitis, I mean tooth-loss periodontitis, I don't mean this elementary gingivitis stuff. I mean truly bone loss, attachment loss. We know as a fact, CDC numbers is now 46 percent of everyone over the age of 30.

When you look at baby boomers and hopefully we'll have that conversation a little bit later in the program, which is a predominant component of our present and future practice. That number can go up to 60, 65 percent. There is no doubt that 10 to 15 percent of our patient base has severe periodontitis. In other words, if we don't intervene, they will be edentulous. So this population is sitting out there.

Usually folks that get on a webinar at night are, I'm somewhat preaching to the choir. So then I will say to you, how many times have you done a periodontal exam, picked up a periodontal probe, explained what you were about ready to do and the patient looks at you quizzically and says, "I've never had that before. What are you doing?"

That's most unfortunate but let's turn that into lemonade in that everything we do in our practice, we do it to market and to attract new patients through the referrals of others. So primarily

that's what I mean by a niche. A niche is actually practicing, interesting enough, Allison, the standard of care in periodontics.

- Allison: So you're just like making the patient aware of what you're doing. You're educating them that you are doing something that they may or may not have had done before but they weren't aware of and what it means. Then how do you see that stimulating referrals? Is that something that you're specifically asking or...?
- Sam: I guess one could and practices do that. I still believe that the most empowering symbol, icon, of a practice is when one of your patients—and I will just go through the scenario. Your patient, Jane, who saw you at 8:00 this morning sees her friend Sally in the grocery store. Sally says to Jane, "Well what did you do this morning?"

Jane says, "I saw Dr. Low. He's my dentist." Sally says, "Oh, I hate dentists, but you look so good after being at a dental office." Jane says, "I love them. They are fantastic." Notice she didn't say Dr. Low is fantastic. "They are fantastic. They explain everything that they do. They are gentle. And you know something? They give good shots," which I still believe, partially because I teach local anesthesia, I still believe is a lost art. That we take that so much far into for granted.

But then what happens to Sally? Sally then does what? She makes an appointment with Dr. Low. That, in my mind, is how we interact. I appreciate social networking, but there's still something called word of mouth that builds practices that are sustainable practices.

Allison: Yeah, I agree. I mean, if you're differentiating yourself, you stand out. If patients see the value for what you're doing and it's different from what they can get somewhere else, I believe they will be loyal and tell their friends. I totally agree with that. Okay, well that makes sense.

Sam: We are approaching approximately one third of the population see a dentist in the last twelve months. That is down from almost the 45 to 50 percent that saw a dentist in the last twelve months 15 years ago. Now a part of that, in fact the primary part of that, is dental insurance. That has decreased.

The reimbursements have decreased and has suggested then that patients are not seeing us because of that. Whatever it is, and I could continue on the variables that creates that environment, I think also part of it is the number of dental practitioners that we have in the United States, especially in dense areas. We never expected dentists to not retire. We thought everyone would retire like they did in the past at the age of 55, 60. Dentists don't retire.

We never expected to have 10 or 15 new dental schools in the last decade. Fortunately, we don't have any new ones coming up because they figured out that dental students aren't going to pay those kinds of tuitions. But we're in a squeeze right now in which I will flat out say to us that we have just too many practitioners and we're all doing marketing to try to acquire those patients. Therefore, I still believe, it's a slightly slower process, but doing Groupons and whitening and discounting our fees, will only attract those patients that expect that kind of service.

- Allison: Yeah. So can you speak to the piece about—maybe this isn't really different from what you already talked about but patients come to us for everything related to their oral health. So maybe that also links into their overall health some, some systemic stuff.
- Sam: Absolutely.

Allison: Okay.

Sam: In fact, there's been a running blog lately on the Public Health Dental blog on what would have happened if in 1900, 1905, we had not become a separate profession from medicine? What would have happened if dentistry had become a subspecialty of medicine? Now, I must tell you that I'm very fortunate, we're all very fortunate that that didn't happen, especially with ACA and especially with the Supreme Court ruling which I think will not end there.

> However, forget about the political throes of that for just a moment. I see a dentist being a stomatologist. I see a dentist being an individual who truly manages the oral health of a patient and that a patient seeks out a dentist for anything related to their oral health, that includes anything from oral pathology.

Now let me preface something. I still believe in doing restorative dentistry and that it is a serious component of our revenue. I'm not taking anything away from that. I'm just suggesting that now it's time to balance out in effect that we are the center of managing one's oral health. Allison, I know you recall that I really emphasize not ever to use the word "treat" in a dental practice ever, ever, ever again and to substitute the word treat for manage. Because when we start to get into periodontal disease, it's not an infection. Sorry. That is mythology.

Periodontal disease is a chronic inflammatory disease, very similar to rheumatoid arthritis, diabetes, cardiovascular disease. None of those diseases are "treated." They are managed. So it will take to a certain degree an old term, but let's resurrect it, a paradigm shift, to appreciate that we are not what we were in dental school and what they taught us to be in countless numbers of hours in preclinical labs working on lvorine teeth. We are that and more.

So in reference to your question, it is not just about the oral health but it's also about the overall health because all of these chronic inflammatory diseases, and it's actually almost scary, it's uncanny how all of them have almost identical scenarios relative to how you get these diseases. They all follow the same inflammatory cascade from the neutrophil plasma cell lymphocyte to the cytokines, all of these purines. The prostaglandins, tissue necrosis factor, all of that is very common in all of these scenarios.

So if our number one patient in both—and I'll speak to the dollar part of this in a moment—but if our number one patient in quantity is a patient over 60 for the next 20 years, these patients are incredibly well versed in chronic inflammatory diseases. I mean, we have four million Sjögren's patients in this country, so therefore we have xerostomia coming through the roof in this country.

So to sit down with a patient and not have a conversation about oral systemic link would be myopic because no matter what hype we have had in the past, every evidence-based study demonstrates that there is a direct link between cardiovascular disease and periodontitis. Meaning that if you're susceptible to cardiovascular disease and you have moderate to severe periodontitis, that that periodontitis will have an adverse effect on cardiovascular disease and therefore puts us in the center of being able to manage not only oral health but also overall health.

- Allison: Then there's a few things that you mentioned are not directly correlated but associated with perio as well.
- Sam: There are. They are not as strong but naturally, an uncontrolled diabetic will follow the same patterns with periodontal disease. The preterm low birthweight baby scenario is slightly weaker, it's an independent association, not a direct relationship like

cardiovascular disease. Then there has been some studies, slightly weak, but studies out there that rheumatoid arthritis and with Alzheimer's.

I'm going to jump one little area on risk factors just for a moment because I don't want to forget it, that is when one has a chronic inflammatory disease, it's the result of a stimulus. In periodontal disease, one could say that the biofilm, and to a certain degree calculus, is that stimulus that initiates the chronic inflammatory reaction.

Gingivitis and early periodontitis are the initiators of a selfperpetuation of periodontitis. So when once these biofilm initially and the repeated insult of biofilm, then we get this reaction which we call periodontitis. In the future, if one sees any biofilm, I'm not talking about substantial biofilm, I'm saying any biofilm, then there is an exaggerated response to that biofilm because the body has gotten smart and just said, "The next time I see the stimulus, I am going to overreact. I'm not going to be in that position again." Very similar to anaphylaxis, very similar to spraining our ankle.

So having said that, from that standpoint, it behooves us to appreciate that when one sees these exaggerated responses, then it can be almost subclinical to us. Many of us have seen a periodontitis in a scenario where we saw very little biofilm. That is somewhat due to the genetic predisposition of the patient but moreover due to this environmental effect.

So when I say stimulus, I've mentioned biofilm, to a certain degree I've mentioned some risk factors, but there is one that I want to bring out of the closet when it comes to periodontists. That is occlusion. For whatever reason, we have put occlusion for the most part, we periodontists, on a shelf. Part of that is our training. Our training has always been with 15C blades and

bone grafting and now implants, but occlusion is a major stimulus that perpetuates periodontitis.

Now, that does not mean that you don't need biofilm in the mix and to get the thing started. But to ignore occlusion and not do an occlusal assessment, potentially an adjustment, and possibly some type of appliance, I think would be very myopic in managing today's periodontal disease.

- Allison: I'm really happy you said that. I know some of the people on here totally agree. I know everybody is probably going, "Woo hoo." Yeah.
- Sam: See we went through a stage, and again, those of you on this call, if you haven't read Malcolm Gladwell, please pick up at least *Tipping Point* as your first. If anything, don't really have to buy the book, just buy the CD and listen to it. Then you will begin to develop the fascination with trending as I have. I think in the 60s and early 70s coming out of the University of Pennsylvania, Boston University, and University of Washington, those are the icons of periodontal centers of learning. All three of those centers were permeated with occlusion and periodontics.

In the mid to late 70s, moving into the 80s, the Scandinavians began to dominate our impression of what periodontics was. Many of these studies were done with Beagle dogs and squirrel and rhesus monkeys and we began to lose the emphasis of occlusion. In its place became the predominance of what? Oral hygiene. That if you do scaling and root planing and oral hygiene, everything will work. Well some of us, even in our infancy in periodontics began to appreciate, I don't think that's true because there is a genetic susceptibility, there is an environmental susceptibility.

Those of us who stayed in the same practice, as you know, I always say, "How to be successful in periodontics? Move every

three to five years." Those of us who stay with the same patients, when we observe these mobility patterns to the point that I rate prognosis on a particular tooth, I highly rate it depending upon what? Its mobility.

- Allison: Yep.
- Sam: Think of all the teeth we extracted, sometimes even with quality partial dentures where the major connectors were around slightly mobile teeth. So to disavow occlusion I think again would be missing the boat. Naturally, as a dental educator, and this is not my age speaking, but I'm extremely concerned about the dumbing down of dental education at this point in which many of our schools are approaching producing more of an apprentice type scenario instead of a scholarly type individual.

Having said that, sorry for venting, but having said that, I also am quite concerned that many of our dental students do not undergo the dental laboratory experiences that we did. I know that I'm sure many of you remember the midnight oil, actually melting wax, as we did waxups over and over and over again. But our dental students aren't experienced with that, so therefore, they're very susceptible when they leave dental school to any corporate—when I say corporate I mean manufacturer—influence on where their practice may go. So, Allison, sorry for venting, but I am very concerned about where we are with dental education at this point.

Allison: Do hygienists learn anything about occlusion as a factor?

- Sam: Very, very little. You probably are not as aware of this as some others but as I begin to speak, I become extremely candid, which you're probably going to ask yourself, "Maybe we ought to end the call now."
- Allison: [Laughs] I'll just change the subject.

- Sam: But let me be candid: Unfortunately, those who educate hygienists are generally who? Other hygienists.
- Allison: Yes.
- Sam: Therefore, we begin to perpetuate a continuation of the same subject matter. If I thought they would attend, I would love to give CE courses on occlusion to dental hygienists. I just don't know, when I'm speaking to a large group and I speak about occlusion, hygienists are like sponges. They should be because they are the ones that are seeing our patients actually more than we are when you look at the life of a patient. I don't mean initially, I don't mean the initial therapy. But on the life of the patient, it's the hygienist that truly needs to know a significant amount of what we're dealing with and unfortunately, I think they want to know, I just don't think they're exposed to occlusion.
- Allison: Yeah, I think that's true. I've got a couple hygienists on here. I do have a question about something you just spoke about before we go on to the next subject. You were talking about biofilm. I have a pretty good sense that I know what biofilm is but you talked about seeing biofilm. When you said seeing biofilm, my brain goes to, "Okay, maybe I don't know what biofilm is."

I know we can see plaque, I know we can see calculus, I don't think of biofilm as something that we see. So can you just—and maybe this is a dumb question but I'm curious about when you say—you were talking about the exaggerated response and that we can see just a little biofilm and see an exaggerated response. Are you talking about in a microscope or are you talking about in the mouth?

Sam: No, I'm not talking about necessarily visualizing it. What I am suggesting is quantity of biofilm in that we now know that

biofilm initiates a periodontal reaction. But the same magnitude of biofilm is not necessary to perpetuate the reaction.

- Allison: Okay.
- Sam: As an example, if you are stung by a bee the first time, you get a reaction. If you're stung by a bee the second time, you get an exaggerated reaction. It's the same venom, it's the same quantity, but now your body reacts differently. That's what I mean by when I say seeing, I mean appreciating a small amount of biofilm can create a very exaggerated response. We know this by something called hyperactive neutrophils.

In other words, a neutrophil is not hyperactive until it's been under the consistent influence of biofilm and then those neutrophils, eventually plasma cell lymphocyte, begin to overreact to protect the body. Unfortunately, that overreaction is literally what destroys the tissue through an enzymatic process. Therefore, why we believe periodontitis to a certain degree is an autoimmune response, just as we get in Sjögren's.

I guess what we would suggest if all of our patients had excellent early care, including oral hygiene, and excellent chairside care with periodontal debridements, then one would never get to the exaggerated response that produces such a bone loss of periodontitis. So my point is that periodontitis is linear in the gingivitis to early periodontitis stage. It's exponential from the early to moderate to severe stage.

- Allison: Interesting. You did talk a little bit about something I thought was pretty neat that you do for your perio patients. I don't have it in front of me, my notes, but I remember you talking about putting them on some supplements, anti-inflammatory supplements. I can't remember what you put them on, fish oil?
- Sam: Right. When we look at these reactions, basically what we are trying to do, I don't want to confuse our audience, but we're

trying to suppress actually something called bad inflammation. That's when we get this overreaction. What we're trying to support is something called good inflammation in which it naturally takes care of the stimulus.

What we're finding out in medicine right now is that there are certain supplements that enhance these naturally occurring substances that deal with supporting good inflammation. This really deals with primarily oxidation and free radicals. I know I'm starting to sound like an infomercial and every time I go through this, I begin to think that I'm going through some type of infomercial and I'm suggesting all of us to visit our nearest health food store and forget about seeing a dentist. Then start just brushing with some herbal toothpaste. I am not suggesting that.

I am suggesting, however, that wouldn't it be nice if the West started at least listening to a little bit of the East? Likewise, I'd like the East to listen to a little... I've traveled to Asia extensively this last year with lasers. I must tell you, that I wish the East would listen to a little bit of the West.

Having said that, omega-3s are really not some homeopathic, holistic scenario by which there is a level of voodoo. Omega-3s truly satisfy these free radicals or assist in it. 81 mg of aspirin is not about coagulation but about supporting positive inflammatory response and likewise, the resveratrol that we see enhances something called resolvins, the resveratrol, in particular peelings of grapes. Why we drink so much Cabernet.

Those kinds of things supplement chronic inflammatory diseases by attempting to reduce bad inflammation and enhance good inflammation. This goes with the whole area of enhancing our—trying to suppress certain cytokines and lymphokines that we know that exaggerate the inflammatory response.

There is a couple of just incredible animal studies. Now, let me suggest they're animal studies, but where they've been able to either take simulated fatty acids, including something like olive oil—I'm not speaking about coconut oil here—but literally make them into supplements and use them on periodontitis in the rabbit model and also in the dog model. In the rabbit model, they were able to extract naturally occurring resolvins from rabbits, make it into a gel and literally place it topically on periodontitis and get bone to grow back. It's a while before but now the resolvin idea is actually approaching human FDA trials through Boston University.

The point is, I think we need to continue to ask ourselves why do we do periodontal debridement? That's the next space I would like to go into, if that's okay, Allison. That's what we do at the chair.

- Allison: Oh yes, that would be great.
- Sam: The scaling and root planing works but not for the reasons that we've always thought. Actually, I really do not like the verbiage scaling and root planing because that's not what we do. We don't scale teeth. There's no scales on teeth. We don't root plane teeth. They're not a board like would be in a carpenter's shop. We're actually disrupting the biofilms. As we disrupt the mature biofilms, then they don't have the properties of being a stimulus and thus then the body can't react. I disrupt the biofilms and I cause a decrease in an overreaction by using omega-3s and etc.

Then I can literally balance the system out to where I do not see a net loss in attachment or a net loss in bone loss. So in my mind, I would rather us use something called periodontal debridement. Now here's where the controversy comes in. I don't care what the state laws say, there is not a hygienist alive that does not do curettage every single day of their practice.

You want to call them inadvertent curettage, so be it, but all of that stuff coming out of there, including a significant amount of hemorrhage, is the result of actually degranulating the wound, whether you want to or not. Whether you use an ultrasonic or not.

When you degranulate that wound, you literally are removing many of these negative post inflammatory cells and that is why you're seeing such a response. If it was only removing the bacteria, wouldn't you think that the bacteria would come back? And they do. And why we do not use as many local delivery antimicrobials as we used to. It is why we do not use systemic antibiotics like we used to. Why? Because you didn't change the environment. The bugs came back.

You can't make a mouth sterile. It's impossible. But you can create an environment by which there is a decreased inflammatory response by removing these hyperactive negative inflammatory cell mediators and you do that through our old friend called curettage. I'm not suggesting purposeful curettage. I'm suggesting continuing to do what we're doing.

However, there are some of us who now have been able to functionally use a laser—and think about this, and I don't mean heat, I mean vaporization—to literally go down with a tip the size of a periodontal probe and de-epithelialize, degranulate, and while at the same time on particular settings, if you desire, do something called laser bacterial reduction. I'm not advocating that laser must be used in nonsurgical perio. However, I am suggesting that it truly facilitates a nonsurgical periodontal care.

So I would strongly advise that we do not scrape on roots like we used to. As I always say, what are we trying to do with root planing? Find the pulp before the patient dies? That's not our objective. Our objective is to do what? Remove the stimulus.

Remove the stimulus. That is why a quality occlusal assessment is as important in the phase one therapy as all the other things that we do in removing the inflammatory reaction.

- Allison: Wonderful. I have a question here, somebody has raised their hand. Is that you, Ryan?
- Ryan: That is. I've got lots of new laser questions now that he's dug into that but...
- Sam: Ryan, I should have stayed off that subject, sorry.
- Ryan: No, you're good. Sam, I was wondering, when we look at the traditional ways we diagnose periodontal disease, we're looking at factors like bleeding and bone loss and pocket depths. This all represents damage that's already occurred. Can you talk a little bit about salivary testing or other advanced diagnostic techniques that are available? Because it sounds like to me it's important to catch this stuff before it gets to that point.
- Sam: Absolutely. No, you hit it right on the head, Ryan. Thank you. The train has left the station when you see radiographic bone loss. My goodness, we have looked for the last 20 years especially trying to find that crystal ball to be able to determine host susceptibility before it occurs.

I'm not a big fan of bacterial testing because my emphasis right now is primarily more on the host but I do think we're getting closer and closer and closer to determining by looking at the level of the cytokine/lymphokine scenario, the overproduction of that. That's really what these tests do that are looking at salivary diagnostics from the standpoint of inflammation, they're looking at primarily the lymphokine reaction to a stimulus. I don't think we're there yet but I absolutely believe we're on the right track.

Having said that, I'm a big fan of something called PreVisor. PreVisor is actually a survey of the patient's condition meaning

that you ask them about smoking, about diabetes, you actually put into the computer algorithm the amount of bone loss they have for each sextant. The amount of pocket that they have for each sextant. Then there is a computer algorithm that gives you in two or three minutes their susceptibility to periodontal disease, on a score from one to five. That test is widely available. You can do it from a computer. It gives you a score. It's extremely valid and reliable. And you know, it's only like \$10.

Thank you because you opened up the door for a conversation on risk assessment. That's really what this is about. And Ryan, you hit it on the head. Diagnosis is a clinician's assessment after the damage. Risk assessment is a clinician's determination before it occurs. I just don't think we are at where we are as an example, with salivary testing for breast cancer, that is out there.

We're honing in on it but there are so many variables that contribute to periodontitis that just doing one of these—now some folks would disagree, especially the Delta study that was done up in Michigan where now they're beginning to determine reimbursement based on a salivary diagnostic which I think is premature, but that's just me. You're right. Bleeding on probing, I always say about bleeding on probing, you can get anything to bleed if you work at it.

#### [Laughter]

I mean, you're having a slow day, you can get 9mm pockets. You're having a day to where you just want to get them out of the chair for whatever reason, you can angle that probe and get 3mm pockets. I'm kidding, but our diagnostic prowess in periodontal disease is actually with a lot of issues with reliability and validity.

Ryan: Awesome. Thank you for that.

Allison: Yeah, that was my question. If you had more.

Ryan: No, that hit it, completely.

- Allison: Ok, awesome. If anybody else has a question, push \*2. Sam, do you want to speak to the—oh gosh, you just said it, I can't even remember what you just said—it felt like a natural lead-in to the something you and I had talked about talking about and I can't even remember what it is now.
- Sam: I do want to mention there are three primary risk factors in periodontal disease which Ryan raised as far as the assessment goes. The three primary risk factors that augment a genetic predisposition, and this is extremely clear to us with our research. The number one risk factor for periodontitis is genetics. We can't ignore it. We've done identical twin studies, and you know, those are good groups to study.

You study identical twins versus familial twins, if you've ever gone to a twins convention, believe me, there must be 2,000 companies ready to pounce on them because they're such a great group to study because then you can change the environment between the two because the genetics are basically the same. So the number one risk factor is genetics. So we always ask our patients, "Anyone in your family, parents, sisters, brother, anybody in your family, do they have a history of periodontal disease?"

The second most significant risk factor is nicotine. I did not say smoking, I said nicotine. So if you're in a nicotine smoking cessation program, you still have nicotine. Nicotine is a major factor in creating, sorry, hyperactive neutrophils. A major factor in tissue necrosis factor. A major factor in slowing down phagocytosis which is if you recall back in dental school which is what we wanted, slowing down chemotaxis which causes inflammatory cells to aggregate.

The next risk factor—by the way, the odds ratio on nicotine is five times greater. So if someone smokes or takes nicotine and they already are genetically predisposed, they have five times greater chance of having attachment loss than if they didn't.

Our next in the cascade is diabetes, especially uncontrolled diabetes, and especially Type I. You know, Allison, if you give me a patient that is 22, that has Type I diabetes, that is a smoker, that is a clencher, with para-functional habits, you have a patient that will be edentulous by the time they're 40. I've seen it too many times because our last risk factor is occlusion.

So we've got genetics, we've got nicotine, followed by diabetes, and ending with occlusion. Those are the primary risk factors in our business. Not that we're going to try to get these folks to change but we will change our management systems based on those habits that they may have.

As I move into that, we do a lot of motivational interviewing in our practice and I know you've had, I believe a podcast on motivational interviewing. Motivational interviewing is a critical aspect in this business. Unfortunately, I decided to be a periodontist. Let me tell you why that's unfortunate, because no patient knows they have periodontal disease. It's a silent disease.

Every now and then, we have to pull out the "c" word to get a patient's attention. We ask them, "Did you ever know anyone that all of a sudden got a diagnosis of cancer? Didn't know they had it and then passed away within weeks?" Then everyone says, "Absolutely." We say, "Periodontal disease is not cancer but there's so many ailments in the body that patients just don't find on their own. That that's why we have practitioners and that is why you're here. That is why we're going to use these radiographs. That is why we're going to use this little device to go in and determine if you have any bone loss, we hope you

don't." By the way, you notice, Allison, that I'm doing scripting through all of this. I'm a strong believer in scripting.

From there, we do our periodontal charting. That's why the VoiceWorks came into play because we wanted a system by which a dentist or especially a hygienist could speak into a microphone and chart, completely do a periodontal charting without ever touching a keyboard or writing something down. We have developed a system, nonsurgical, periodontal protocol systems for the practice of general dentistry.

We've developed systems for collecting data, all of these are definitely related to timeliness, in other words, not spending 20 minutes to do a periodontal exam. We have developed flow charts, flow systems by which patients move through the practice of dentistry: who sees them first, who sees them second, who sees them third.

We have developed systems for our brothers and sisters out there who take third party and developed systems for the appropriate ways of coding and trying not to allow a third party to dictate a patient's care. With all of that, we've actually developed oral hygiene systems for our patients. I know, Allison, I think I saw the last time that we were in a group when I said that flossing in periodontitis is definitely mythology.

Flossing is just such a poor, poor way of managing periodontitis at home. No study shows it's effective. We're much more effective with Sulcabrushes and interproximal brushes and using the right medicaments in those particular sites in hopes of getting quality compliance.

You may be aware in the last seven days, the AAP has released a lot of press statements. They've been on DrBicuspid, they've been on the *Today Show* about how patients lie about flossing. As if that was news to any of us. I

never believe patients in the first place. I guess it just took a survey for us to find out that they were all lying.

We do know that only 7 percent of our patients floss every day. I try to find the most simplest ways to manage their oral hygiene at home to get compliance. We do not have any manual toothbrushes in our practice. Everything is electric. We have moved almost exclusively to the Airfloss by Philips and putting a medicament in the Airfloss.

We've also moved over and that's why I became a consultant, to utilizing these antioxidant gels that supply electrons to these free radicals that are called PerioSciences. One can go on PerioSciences.com and get that information.

- Allison: It's a fantastic product for many things, not just periodontitis. I know there's some people on here that use it.
- Sam: Yes, a few weeks ago after some intensive research, we have released an FDA-supported product just for dry mouth. The original gel works quite well on xerostomia but we enhanced the formulation, including adding glycerin to make the dry mouth product even more significant. Actually, I think it's called Dry Mouth Gel.
- Allison: Is it a single thing? Not the kit?
- Sam: It's still a kit but the only thing that we changed in the kit was the gel. We enhanced the amount of the antioxidants and we added glycerin so that we would be able to get FDA approval. So that now we can put on the side of the package that it is effective for xerostomia. You can still get it separately, Allison, or you can get it as the kit with the three, but the toothpaste and the rinse are still, I believe, the same. It's the gel that has been changed.

Allison: Okay.

- Sam: As you know for lichen planus, for oral mucositis, patients undergoing chemo or radiation therapy, I mean, it's a godsend for them. Aphthous ulcers, herpetic lesions, anything. Also for individuals who are doing restorative dentistry, to try to decrease all the gingivitis before we do anything esthetic as far as doing any esthetic preparations. It's excellent for that because it not only has the antioxidants in it, it also has menthol thymol, which is in Listerine, which is our essential oils. Then it has greater than 2 percent xylitol which as we know is critical for the caries around our restorations.
- Allison: Yeah, we use it, I'd say daily we use that for something. It's fantastic. We even had an assistant use it for—she had a curling iron burn. That was worked best for her curling iron burn on her arm.
- Sam: Well, you know, it's a little out of our scope, but I must tell you, many of us have taken that gel and put it on a wound site outside of the mouth and have found that it did enhance the healing. It would because it is truly an anti-inflammatory supporting by providing these electrons and freeing up these free radicals.
- Allison: We are almost out of time and we didn't get to the baby boomer thing. Is there something you want to say about that quickly?
- Sam: Well, I alluded to it and in fact, it's great. Let's do a 360, going right back to the niche which started our conversation. I believe that the practice who parlays itself towards the needs of the baby boomer is the practice that's going to win. Those three conditions are periodontitis, xerostomia, and the caries that is the result of that xerostomia.

If I were you, I would take as many courses as I can about how baby boomers think, about how baby boomers interact, about the medical conditions of baby boomers. Actually, I have now on the CE circuit, I am actually doing courses which are called

Dental Conditions of Baby Boomers and How to Manage Them. It's become quite a hit and many of our groups like Yankee and others are picking up on that plus I'm just doing it as a standalone CE course.

- Allison: Awesome, great. That's exactly what I was wondering. You did speak about the thing that I forgot which was the calibration and the quality of data so you actually got to that, that was what I was trying to get you to say after Ryan asked his question. Do you have a way for people to get in touch with you? I know I've got your contact information, do you want them to contact you through me?
- Sam: I truly believe in open source culture. We have a website. I only created a website so that folks would know where we're speaking. That website is very simple. It's www.drsamlow.com. My email is simply Sam at that site. It's sam@drsamlow.com. If you've got a paper and pencil, I would be more than happy, my cell number is (352) 538-9654. When I'm actually not involved doing something else, I try to be responsive to all emails within 24 hours. If I don't answer the phone, leave a message and I'll call you back.

My mission is to truly enhance the quality of patient care. As I end all presentations with a quote from Dr. Pankey, the mission of my practice is simply to "help you keep your teeth all of your life if possible in comfort, esthetics, and function." I think that's what we're dedicated to do as practitioners. So thank you, Allison, for giving me this opportunity. I really appreciate it.

Allison: I really appreciate you being here. I appreciate your contribution to dentistry and your willingness to say yes and to spend time with us tonight and away from other things you could be doing. That goes for all of you as well. Thank you, I do believe and that's why I'm doing this too, that it will make the profession better and it will allow us to better care for our patients.

Thanks for listening to *Practicing with the Masters* for dentists, with your host, Dr. Allison Watts. For more about how Allison Watts and Transformational Practices can help you create a successful and fulfilling practice and life, visit <u>transformationalpractices.com</u>.