

Wendy Myers:

Hello everyone, my name is Wendy Myers. Thank you so much for joining me for the podcast today. My website is meyersdetox.com if you wanted to learn more in depth about detoxification. Today we have my new friend Dr. Steven Lin on the show. And he's going to be talking about The Dental Diet, that's his new book. And, he talks about how food is causing the orthodontia crisis. The epidemic that we have today, with so many children having so many cavities, and capitation, root canals, and braces. And what you can do about it, the changes you can make in your diet. The changes you can make in the type of fats that you eat, to improve your oral health.

Dr. Steven is going to be talking to us about, how closely dental health is tied more to dental health in brushing, flossing, and teeth cleaning. You know, a lot of us go to the dentist to get our teeth cleaned, and we're brushing and flossing, hoping to take care of our teeth and prevent cavities. But it's not so simple. Health, dental health, tooth health, comes from within.

So today we're going to be talking about the role of fat soluble vitamins, and absorbing minerals for dental health. The fluoride debate, you know, are fluoride treatments something that you should do, or not? And how to prevent dental issues in your kids.

If you haven't joined me yet for the heavy metals summit, go check out, theheavymetalssummit.com. Dr. Christine Schaffner, Dr. Dietrich Klinghardt, and I had 40, about 40 talks, about 40 interviews that we did, talking to every expert in the world that we know, about how to detox your body, why you want to detox your body, and just give you a world of education about the importance of detoxification.

Our guest today Dr. Steven Lin, is a dentist, a TEDx speaker, and author of The Dental Diet. With a background in biomedical science, and as a passionate health advocate, he is a leader in the functional dental movement, which aims to prevent orthodontic braces, and crooked teeth. His book is the complete story about how food has caused the orthodontia epidemic, and the 40 day meal plan to heal your body, starting with your mouth. You can visit him on Facebook at Dr. Steven Lin, or Instagram @drstevenlin. You can learn more about him at drstevenlin.com.

Steve, thank you so much for coming on the podcast.

Dr. Steven Lin:

Thanks for having me Wendy, it's a pleasure.

Wendy Myers:

So tell us a little bit about yourself, and how you got into health.

Dr. Steven Lin:

Yeah so, I mean, I'm a dentist by trade, but I've got a background in biomedical science. So, I, you know, seven years of dental school, and then jumping out into a world of practical clinical applications, and I, you know I had a background in sports nutrition and kind of special athletics. And so I was very much kind of

connected to the, the idea that you know, your environment and what you eat, affects your lifestyle, health and performance. And I found that dental school took me away from that. And then I went out into practice, and you're kind of distracted from what you don't learn in dental school, cause it's very intense. Right, because you're learning how to fix stuff, and it's really hard. It's a hard kind of career path.

Rebuilding things in the mouth is inherently difficult. And I kind of, you know started practicing and you know, it's rewarding rebuilding peoples' smiles, but I found that there was really a lot of things about peoples' mouths and health in general that I didn't know. And this was all of the problems that we see in peoples' mouths, tooth decay, bleeding gums, gum disease, why kids don't fit teeth, sorry jaws that fit their 32 teeth anymore. So, orthodontic braces, wisdom teeth impactions, there's no answers for that in conventional dental education. Because I went back through all the text books and so, that kind of led me down the road to looking wider, and kind of seeing if there are answers to our mouth, to the oral systemic connection, to nutrition and how we can really influence that. Actually I, I think, you know after many years in this, I think that nutrition should be shaped on dental health because it's the first point of contact with food, but you also see the first signs of disease in the mouth as well. And so, I just think we're missing this because we're so busy thinking cosmetically how smiles look, which is great, we need to think about that, but let's understand what's happening underneath as well.

Wendy Myers: Yeah I think that's a big problem because we do have amazing dentistry, in the United States, and people can destroy their teeth with sugar, and refined grains. And then a dentist will just rebuild them back up, and repair the cavities. But then the, you know, obviously your teeth do suffer in the long run. I think you have too much dental work, and root canals, and so many different fillings and repairing the fillings over time. It really degrades your teeth quite a bit.

Dr. Steven Lin: Yeah that's a great point actually. And, you know, nothing against conventional dentistry because, but it really shows what we're lacking. So you know, we can go and rebuild nearly anything now. Like, since we've pretty much solved you know, reconstructive dentistry. Like we can do nearly everything besides regrow a tooth from you know, an embryo which they're doing now. And I'm pretty sure they'll be doing [inaudible 00:05:41] anyway.

But it's taken our focus off, you know, what the mouth is telling us. And also understanding that as well, because there is so much understanding, so much science, so much physiological understanding behind dental disease that tells us about everything that goes along. And so instead of treating end stage diseases, why aren't we spotting them earlier in the mouth?

Wendy Myers: Yes, so tell us about some of the like, some of the nutrient deficiencies that cause dental diseases like tooth decay, and gum disease and crooked teeth. So, we know that's connected to diet, primarily. Talk to us about what those nutritional deficiencies are.

Dr. Steven Lin:

Yeah, so I mean the first one you know, because everyone kind of knows this, and it's actually probably one of the first real kind of dietary links to disease that was heavily imprinted into our healthcare and society in general. There's a connection between tooth decay and sugar. And so we kind of have this causal link between sugar and tooth decay, and story ended, sugar causes tooth decay. It hasn't stopped us from eating sugar but, there's actually much more to the tooth decay picture.

So, for instance there are cells inside our teeth. Inside what's called the pulp, or the blood and nerve supply of, of the tooth. That actually, an immune response to bacteria or invasions from outside, in the oral cavity. And so these immune cells are hungry for fat soluble vitamins. Vitamin A, vitamin D, vitamin K2. And so, these are the nutrients that, actually they feed what these little cells, what they're called odontoblast, but these cells actually come from your bone marrow. And so they signal whether the stem cells from your bone marrow become immune cells or they become bone making cells. So that's how your immune system, and bone, and skeletal system comes about. And all of this has been directed by these three nutrients. And obviously some other cause but at the base, we've got vitamin D, which we know is crucial for the skeletal system. Vitamin A, which we know sends bone homeostasis signals, bone turn over, growth, for growth and development of embryos and children. K2, which kind of like puts it all together, which helps us mineralize everything.

And so, those three nutrients really haven't been talked about in terms of you know, how they connect to dental health and such. And the biggest probably connection is with vitamin D, because we know what it does to the skeletal system. Well it also feeds that immune system inside your teeth, it also feeds the bone homeostasis in your jaw and your, the microbiome that controls gum disease. And it also signals a child's jaw to grow. So it signals growth hormone, testosterone, that will tell a child's jaw to grow, which is why kids need braces today because then their faces and upper and lower jaws aren't growing the way they should. So it's all a skeletal problem. We haven't seen it like that, and so there, obviously there are more nutrients in place but, at the base line, these three nutrients are crucial for dental health. And so they, I just think they cascade from there so you, we can go and focus on everything else. But we need to be focused on these three to start with, and go on.

Wendy Myers:

Yeah and that's very much the Wesley Price school of thought, where you need these fat soluble vitamins, the A and the D, and the K, to have healthy bones and healthy teeth and what not. And he was saying that you know, people that have adequate nutrition, that aren't eating all of these refined grains and sugar, they have much wider faces and much wider jaws. And therefore enough room for their teeth to grow and come in. And so, so tell us a little bit about why kids teeth aren't growing straight teeth today. Like, why do they need braces? I think I just answered the question but, I'll let you explain it.

Dr. Steven Lin:

Yeah you did. You absolutely did but, for those people who haven't heard of Wesley Price, I hadn't heard of Wesley Price either and I actually took some time

away from dentistry because I wasn't sure if I could do it all my life. And I discovered his book, on a traveler shelf in Turkey, in Istanbul. And I picked it up and thought, what is this? And I kind of scrapped through it, and I was like, there's all these photos, it tells the story of this dentist that went around the world in the 30's. And I was kind of like, you know this is great but, you know, it's obviously, I haven't been taught this in my, tertiary education so it's got to be out, disproven. So I put it in my bag and went away. But I actually went back to it a few years later. I think it was just calling me the entire time.

Wendy Myers: So you stole the book?

Dr. Steven Lin: Yeah, uh you swap it, I think I swapped mine right?

Wendy Myers: I'm joking.

Dr. Steven Lin: That's a good one. No one's ever said that before.

Yeah but so I, I went back to it and I was kind of like scratching my head. And I was like, well hang on, I don't understand what he's saying here. And everything you just said, is absolutely what he was doing. So he was going to, around in the 30's. He went around the world following cultures. He looked at the ancestral diet, and where the modern diet intercepts our traditional civilization. And so, what happens to our teeth comparatively to our anthropological records, so just to put it kind of you know, as kind of plainly as I can. Dental diseases, every single dental disease we see today has not occurred the entire history of human, the time that we walked the earth, until the agricultural revolution and the industrial revolution. And that is, if you, you know had a string this long, you could barely picture what that is in terms of the length of time of humans on earth. So this, he was documenting how quickly the modern diet destroys, the tooth decay, so it links up to the modern diet that we get. But, what he was talking about was jaw growth as well. And this is something we still don't talk about.

Kids today, do not grow jaws that fit 32 teeth. A child that has to have their braces at 10 to 12, or their wisdom teeth extracted, which nearly all kids do, in their early adolescents. Sorry, early 20's. That is a sign of jaw growth. Improper growth. So what he showed is that every society ate these three nutrients. In 10 to 20 times as much as what the modern diet, sorry, the Americans were eating back home in Ohio. And then he showed that once you strip it out, this is when you get dental disease. And obviously there's other parts to diet, but he was kind of really honing in as to what people were eating to both, prevent dental disease and insure proper growth. And we know how important this is now, because this is something I was never taught in dental school. But when you have crooked teeth, that means your maxillary upper jaw bone is kind of thin and narrow by definition. And when that's narrow, your airways are narrow. And so you decrease the volume in your airways when we don't develop teeth, and now we're walking into a sleep breathing epidemic.

So, sleep apnea, upper airway resistance syndrome, this is happening in kids. So, kids snoring, kids grinding their teeth. It's because their jaws and faces haven't developed. And so this is what Price was talking about, we ignored it, and we kind of went down the exact opposite route as to what he was describing. And now here we are with faces, and craniofacial systems that don't grow.

Wendy Myers:

Yeah. People have all these skinny little faces. You know, because mothers aren't getting adequate nutrition, and the mother before her didn't get adequate nutrition. The diets today of most children are just absolutely atrocious. It's all, pretty much pure refined grains and sugar for a lot of kids. Eating, you know, sandwiches, macaroni and cheese, and cereals, that's pretty much what most kids diets comprise of. So, I was gonna talk to you about how adults are affected by their jaws not developing. What kind of health issues are we seeing? You mentioned the sleep apnea, and some breathing issues. Anything else that you want to talk about?

Dr. Steven Lin:

Yes, the most common ... and so sleep apnea is the most severe disease category on the spectrum of breathing disorders. But there's a whole population of people that are being misdiagnosed for sleep problems. And so, I see this all the time, and this is anyone that hasn't really grown an airway that has the adequate volume.

So what happens is that when you sleep, all your muscles relax and your face kind of sinks into itself. And that's when you're supposed to be breathing, when you're sleeping. But so, what happens is that if your airway, if your jaws don't hold that open, the closing volume sends a choking response to your brain. And so what that does, is pushes your jaw forward often, and then you grind your teeth. So people that grind their teeth, and don't sleep well, or have to sleep on their stomach, they actually suffer from a syndrome called upper airway resistance syndrome. And this is where they never reach deep sleep because their brain is constantly getting this choking response, and it's not even a medically acknowledged term yet. But it was defined at Stanford in the early 90's by a guy name Christian Guilleminault. And he's since, kind of published many, many papers on what this syndrome does. And what it does is it pushes us into this fight and flight kind of response, our digestive systems turn off, the vagus nerve is crazily out of whack, teeth grinding, anxiety and depression because we can't, we constantly can't get rested. You're tired through the day, cold hands and feet. And so that's a really, really common presentation of what, the problems with breathing at night. And so it flows on to all kinds of problems.

And then you get the gut problems that flow on to, we know it connects to nearly every chronic disease out there. So, issues with the jaw, kind of flow on right throughout the body and you can nearly always bring this back in an adult, to a problem with their breathing and how they've kind of compensated. And it's all about survival because we have to take the next breath, right? So, like, if you have to breathe through your mouth or you know, your body will do it cause otherwise you're gonna keel over and die. And so this is kind of like the

equations that, we've built this system that is just working to survive instead of thrive.

Wendy Myers: Yeah, and so with my daughter, my daughter has a very wide face, cause I ate everything in sight when I was pregnant. So she's very, very healthy, um but, a lot of kids today have to have braces, and they have to have all kinds of dental work, and their mouths are full of cavities. But yet, dentists are still doing mercury fillings. So, what is your take on mercury fillings and some of the health issues that that's causing?

Dr. Steven Lin: Yeah, there's a lot of context, I mean, you know, as we said, dental work is kind of, we've got a lot of tools now to fix disease. But, you know we've got the whole, we have the whole thing wrong, because we're not understanding as to why the happening tooth decay, gum disease. Braces as well. So braces, we can actually intervene in a child's growth, kind of a stage, and make sure they grow just through physical function breathing through the nose. It's called myofunctional orthodontics, getting their tongues through a closed lip. A child will grow a jaw, physically if we correct this.

Now so this is all kind of going down the road to understanding disease processes better. And amalgam fillings are, you know, it's one of the restorative arms that were big through the late 20th century, well the 20th century as a whole. And we've kind of phased it out now, and the dental kind of ... the conventional dental kind of line, is that you know, there's no significant risk or exposures to mercury when you know, you put amalgam fillings in. But, there's a lot of tests out there now, and I've seen many, many people with amalgam fillings. Some are perfectly fine. Some are suffering health problems. I don't think it's an across the board recommendation to go get them all ripped out. I do think if you're having any kind of issue at all, I would certainly look closer into your mouth.

Missing clues, root canals, therapies, treatments that you've had. Anything in there, if you have a problem that you can't find the answer for elsewhere, I would start in the mouth. And so, this is, you know you can get metal testing, you can get other kind of sensitivity testing to see if there's a problem there. And there's even a system to, you can have detailed scans on root canal treatments for instance. Cause there's thousands and thousands of tiny little canals that we can't fill as dentists. You know, we have to kind of just fill the main ones and hope that the tooth responds. Which, sometimes they do. I've seen teeth heal, root canal treatments heal and people go on without, and live perfectly healthy. But, for people that are suffering problems, I would certainly recommend digging deeper into, any dental treatment they've had, the materials, because there can potentially be issues.

Wendy Myers: Yeah, especially root canals. I mean, a lot of root canals are, can be infected or there could be cavitation. And I think definitely, I agree with you, anyone with severe health issues, chronic fatigue, autoimmune disease, they can't, or they want to figure out the root cause, you want to be looking at your mouth and

looking at if you have any root canals that you might need replaced. And put an implant instead, but that can be problematic as well. I mean, people could be sensitive to the materials that are used, the titanium, the zirconium, used with the implants and if you don't do it with the right dentist that can create problems.

Can you talk a little bit about what your thoughts are on replacing root canals with implants, and what problems root canals can cause?

Dr. Steven Lin: Yes, so that's, those scans you can find there, um, the by the gallium method. You can actually get inflammatory scans that actually show you whether you have this level of inflammation in your vessels, that might be leaking to retreated teeth. So there are methods out there now to, to kind of check if your root canals are a problem. You can get a CBCT scan on the tooth and you'll see infection that won't turn up on normal x-rays. So I would, you can certainly go down the road of investigation, that aren't really mainstream yet but they're there. They're happening.

With implants, yeah so there's a certain amount of people that will be sensitive to titanium or other material metals or implants. So you can actually get a testing done before to see if you're sensitive. I think it's something like 30 percent of people are sensitive to certain metals. So they may not do well with a titanium implant. And those tests aren't conventionally available, so obviously I'd recommend digging deeper before you kind of dive into a dental treatment. But then, ceramic implants are actually, look like to become probably the safest option there. So they're a non-metal option and they're very bio compatible, and there's a lot of kind of, systems out there now that you can actually, you go along-side in terms of supplementation. And really kind of get that great bone healing, with non irritant materials. So, there's a lot of options out there. They're a little bit, kind of hard to find, you have to dig a little bit deeper. But I would certainly recommend having, doing a good search on it, before going down the road of treatment.

Wendy Myers: Yeah. Let's talk a little bit more about nutrition. And mineral deficiency is a big problem, and I think a big cause of people's teeth not being sensitive, or being porous or just not being very, very healthy. And you need fat soluble vitamins, and saturated fats to absorb minerals in your body. So people on these nonfat diets, or not getting healthy fats in their diets are going to be mineral deficient, and minerals are deficient in our soils and our foods today. So a lot of people have dental issues as a result of that. Can you talk about the importance of minerals and what types of minerals people should supplement with to have healthy teeth?

Dr. Steven Lin: Yeah, that is such an important point Wendy, because you know, this is something that nearly everyone, anyone that has dental issues, it's the base of their problems. Their body isn't absorbing. And there's many, many reasons why that's not the case. But the fat soluble vitamins really teach us, I can kind of get that base line going. And so, when we kind of ... kind of my roads to writing The

Dental Diet, I was really trying to get my patients to eat more fats, as you say. Saturated fats, food rich in fat soluble vitamins. So you know, things like liver, things like iron, and grass fed butter. Things like cheeses, and sauerkraut and [inaudible 00:23:20] if they can tolerate it. But so, these are foods that nearly no one eats unless you really understand the nutritional value. And what they do, is they help you to absorb those three key nutrients, vitamin A, vitamin D, and vitamin K2, through the absorption of fat through the intestines. So what happens is that all of the fat soluble factors in your diet are packaged together, in your intestine, and packaged into your blood cholesterol. So what your doctors measure in terms of your blood cholesterol's HDL's and LDL's, they are like a UPS postage system. They go around and kind of deliver all of these fat soluble nutrients.

So if you don't eat the factors that pack this up into nice, neat packages and send them around, your body can't deliver them. And so, if you're eating refined vegetable oils, if you're eating lots of sugar and refined flour, these things absolutely inhibit the absorption of fat soluble nutrients. And one big thing too that, if you take a vitamin D supplement, say with a salad or a low fat say, chicken breast and some vegetables, you're gonna barely absorb any of it because there's no fat to go along-side of it. So fat soluble vitamins need to be eaten with fat for that very reason because they're absorbed and packaged to travel around the body. And so, those key foods, there's only a few of them that are rich in A, D, and K2.

A big factor is that, you know, people kind of think, well I ate a lot of carrots or colorful vegetables, I'm getting a lot of beta keratin, which the version of vitamin A that you find in vegetables. But that needs to be converted to the active role, which is retinol in the body. And so the retinol version of vitamin A comes in eggs, in butter, in organ meats. And so, you'll only really depends, you can get genetically tested to see how well you convert these things, but you'll only generally convert, maybe 15 to 30 percent of vegetables if you're eating it with at least a good portion of saturated fat, which most people don't.

So the active forms of fat soluble vitamins are really important. So K1's the same, so green vegetables. K2 is very different. So K2 is called menaquinone, K1 is a phylloquinone, and so phylloquinones and certain types of menaquinone as well. The MK7 which is a bacterial one and the MK4, which is the animal one. That's the one that your body uses. And so that's one that goes to the brain, goes to all the tissues, and really kind of does all those things that the vitamin K2 is designed. They're both converted in the liver to the MK4K2. So K1 and K2MK7 convert to K2MK4 in the liver. So you really need, you can eat that directly from your diet though. If you have organ meats, if you have grass fed butter, eggs, egg yolks by the way. You will be feeding yourself those active forms. And so these all go along together. Magnesium is really, really important. Zinc is really, really important. Calcium, I think if you eat enough fat soluble vitamins, you don't need to worry about supplementing calcium. But, I really think that those support factors for A, D, K2, magnesium, zinc, you know, there are a couple other things you can potentially look at.

But if you get them going right, and you eat a diet rich in those fat soluble vitamin rich foods, you nearly cover them up anyway. Things like choline and coenzyme Q10. They come from foods that you're going to eat anyway, so focusing on those really cover those up.

Wendy Myers: Hmm, it doesn't sound like any of those fat soluble vitamins are in the vegan diet. And I think that's why a lot of people that you know, experiment with that diet, eventually find after a year or two that their teeth start disintegrating. And they start having all kinds of dental issues. I think many times they don't connect that with their diet that's completely lacking in animal fats and soluble, fat soluble vitamins.

Dr. Steven Lin: That's totally it. And so, all of those conversions that we just mentioned, so the vitamin A to retinol, which the vitamin A does come in beta keratin. Retinol, you don't get it from vegetables, you don't get it from plant based foods. And I'm, my diet is all about being plant based, but that's the base of the pyramid is all vegetables right? Because that's, you need fiber, you need all of these things. But you have to have well source animal foods. And if you're not, you need to supplement, because your body won't get them. And in California here, you can get lots of vitamin D from the sun, but many people that don't, that work indoors or live in a climate where you can't get lots of sun a couple hours a day, you're not going to get enough vitamin D.

K2's the same. You will not get enough K2 from green vegetables, or fermented foods unless you're eating that accurate form. So, that's a great point. You know, people who are vegetarian you know, can eat eggs and certain dairies that will help get that. But vegans, people need to supplement because, just by definition, let's just understand the nutrients without kind of, you know, I understand the ethical reasons for being vegan. But you need to understand what your body needs, and how you're going to obtain that from your diet.

Wendy Myers: Yeah, and even still if you supplement K or you supplement vitamin D, you still have to have the saturated fats, and the animal fats to absorb, utilize those and the minerals. So I think that it's just, I personally think it's a losing battle with your health if you go vegan. Cause I did it for six months, wasn't a very good, successful experiment.

So let's talk a little bit about brushing and flossing. And so, what are your thoughts on those for you know, to have healthy teeth?

Dr. Steven Lin: Yeah so, brushing and flossing has kind of been the mainstay of conventional dentistry as that, you brush and floss well, you're gonna have healthy teeth. And you go to the dentist and you lectured of how you're not brushing enough, you're not flossing enough. Well, like you know, in 2014 the FDA kind of went through the literature and showed that flossing actually doesn't really link to any kind of benefit in terms of what paper showed in terms of evidence. And so, what I try and frame brushing and flossing as, when you have with your car, when you have an engine problem, you don't take it to the car wash do you? It's

no use having a car that doesn't run, with a nice shiny paint coat. So that's what you're doing when you're brushing and flossing. That's what fluoride does as well. It just addresses that very superficial layer in your mouth of the tooth's surface. When actually, you've got an entire system in your body to protect your teeth, regardless if you brush or floss. Wesley Price, and you've got to remember too that these are very, very recent interventions. And I'm not telling people not to brush and floss, but let's put it in perspective. It's part of your daily regime. It's not ultimately how you prevent dental disease.

How you prevent dental disease is, eating foods that feed the immune system, that balance the hormones, balance the microbiome. Remember the mouth has a microbiome of itself. And so, there are probiotic bacteria that live in your mouth. When you constantly disinfect, when you constantly scrub, when you constantly, and the big one I say no to is mouthwash. Don't use mouthwash because the studies, there was a study that came out last year that linked daily mouthwash use to type two diabetes. And this is, you swallow thousands of microbes every day. So, if you swallow a disposed community, so when you take away ecological diversity, you're delivering that to the gut. And we know that connects to, sorry, digestive problems, autoimmune issues. All of the problems, and type two diabetes has a characteristic gut microbiome patent, that is a loss of diversity.

Same thing in the mouth. When you have a diverse ecological balance, you, all the probiotic bacteria protect you against tooth decay, gum disease, and so on. The same goes for the gut. And so, all of this kind of shows that brushing and flossing really is very low down on the importance ladder, and that food, and you know, understanding what your mouth actually needs is far, far more important.

Wendy Myers: Yeah, I've been using a manuka honey toothpaste, and I'm wondering if I'm doing the same thing. I'm killing all the good bacteria. It's the same kind of concept, I'm not using Listerine or eucalyptus oil or some of the other things, and the natural mouthwashes, or the not so natural mouthwashes. But it's still the same concept, I'm probably just killing a lot of bacteria in my mouth and causing problems.

Dr. Steven Lin: Well you know what, like, I mean essential oils and kind of like natural antibacterials, I'm sure have a little bit more kind of, yeah like, nature knows what it's doing far more than what we, what we've bottled up with alcohol or chlorhexidine. Or, kind of a hydrogen peroxide mouthwash, so I think you know, something like that maybe every now and again is fine. But maybe not every day, because really what you're trying to do is, you want to be encouraging bacterial diversity. That should be your, kind of long term strategy. I think using an essential oil, or a manuka honey or propolis kind of based toothpaste, you know, I think that's, people have done that, and I think nature has it's way of kind of, balancing that out. So I don't think that's necessarily bad, but maybe just you know, maybe not every day.

Wendy Myers: What about teeth cleaning? It seems to me, that you know, your dentist recommends you go get your teeth cleaned every six months. And they take this metal hook and scrape your teeth really, really hard and it seems like that might be doing damage to you know, to the outer layer of your teeth. What is your take on that?

Dr. Steven Lin: It's possible. Look, I think those cleanings, they, it's good to go to your dentist every six months because they're going to, they can get a much better look of your mouth and, you know dental cleanings, because when you have plaques and kind of consistent plaques, that can lead to disease. So if you've had dental problems before, cleaning can kind of help kind of remove all of that. And then you can kind of reset from there. So there's definitely kind of a role to dental cleaning. But what I kind of go down really is that calculus build up you get on your teeth, it really shouldn't be that hard calculus that you know, I see really, really thick calculus build up on people's teeth.

And the actual reason is a lack of K2. And so dentists because what happens is that we know that when you don't have enough K2 in your diet your arteries, your body can't carry calcium out of your soft tissue. So your arteries, people have high risk of cardiovascular disease. But in the mouth, that little spot behind your teeth where the dentist scrapes, and everyone will have a little bit of, a little bit of build up is normal, that's fine. But if you have a really fast build up and you have a really thick build up, that's a calculus build up that is a sign that your body isn't distributing calcium enough. And so, instead of going, so what will normally be recommended is you go for, you know, more often cleans more often than you do heavy periodontal treatment to get rid of that calculus build up. And you'll be lectured on oral hygiene that won't matter because your body's just gonna be putting this plaque back there. That's understand, why you're not placing calcium in the first place.

Wendy Myers: Oh that's a very interesting take on that. I hadn't heard that before. But you don't think that we're damaging the enamel of the teeth by scraping them?

Dr. Steven Lin: Look, I think it's possible from what I've seen. I've done a lot of dental cleanings myself, and it does feel ... and when you have it, because your teeth are very sensitive right? It feels probably far worse than what is actually happening. But, you know, I think it's possible. I've seen very, very few cases of that kind of damage. But if there is damage, you know, it's probably because there was an issue prior as well. So you know, there's kind of weakness there in the enamel. So, I think dental cleanings are safe and maybe every, if you're eating a healthy diet though, you're only going to need to go every year to two years. You don't need to go all the time. So it's something that you can kind of, I think space out a bit more too.

Wendy Myers: Okay. Yeah and so, let's talk a little bit about fluoride. So, when I go to the dentist, I absolutely avoid, the one I go to is biological so they don't offer the fluoride treatments. But in the past when I've gone, they're always trying to push the fluoride rinse on you, and the fluoride treatments, the fluoride

toothpaste and all this stuff. And there's already fluoride in the water to, you know conceivably strengthen your enamel. What is your take on that?

Dr. Steven Lin: Yeah so, fluoride you know, has kind of been the mainstay of again of dental disease prevention. I think it really needs to be seen as treatment, so fluoride is a treatment. We are using it to ... what it does is it decreases the risk of tooth decay by making your tooth enamel more resistant to acid. We know that happens, but the thing is, from what we've talked about already in this last 40 minutes, people should already be thinking that, why do I need fluoride if I'm eating the right things? Which is absolutely true. And so fluoride has a role in rampant decay, I think we can kind of use it to stop, you know, for instance in kids and some elderly people, you can get really fast moving decay. So you can use topical fluoride to kind of slow it down.

Fluoride in toothpaste doesn't make sense because it's at the concentration of water fluoridation, which actually is shown to be effective systemically and not topically. So if you're putting a fluoride toothpaste in your mouth every day, it's not doing anything anyway. And you're exposing yourself to fluoride for, because there are, you know risk and benefits of every treatment. And fluoride has its risks as well. And anyone with kind of gotten, sorry fluoride issues, I would recommend looking at your fluoride intake because there can be issues. And by definition too, fluoride is antibacterial, so the same story of kind of removing and disinfecting the mouth. That's what fluoride we know does. But we don't really know exactly, you know, how it disinfects or what species it disinfects. So, I don't think fluoride is the answer for many, many people. I think it should be, if you look at your vitamin D levels, if you look at your diet, if you look at your gut, if you look at how you sleep and breathe, that's how you have a healthy mouth and not putting a kind of a superficial fluoride paste or even fluoride, drinking fluoride water every day.

Wendy Myers: Yeah, absolutely. I just tell people to avoid fluoride if they can, just because it definitely interferes in our thyroid function, the uptake of thyroid hormones and iodine into, the uptake of iodine rather that makes your thyroid hormones into your thyroid, causes a lot of different problems in the body. And so let's talk about your book, The Dental Diet. So, tell us what kind of things that we can find in the book and learn from the book.

Dr. Steven Lin: Yeah so we've actually covered kind of a lot of the topics that we talk about. So we dive into the story of Wesley Price. We dive into breathing. So the one thing that I try to teach people is that oxygen is the first nutrient. So we try and learn. I think the mouth shows us the most crucial things that your body needs. And so, oxygen is the first nutrient that you should be feeding your body. So, we learn how to breathe properly. We learn how to teach our kids how to breathe properly so that they grow jaws and hopefully prevent braces. And we do breathing exercises before eating. And so understanding how that affects your sleep is really important.

And then we go on to you know, what you eat. So how do you eat for good dental health? It's based on the philosophy that fat soluble nutrients are crucial to the skeletal system, to the immune system inside your teeth, to your gums, to your microbiome. And how to get that in a modern day, busy lifestyle, cause these foods are, you have to think about it. And whilst it might seem a little bit annoying, eating fats, a diet rich in fat soluble vitamins is going to be far more beneficial to you and save you far much more money than trying to, you know, go down the road of any kind of, other, any other kind of health kind of reset.

Then understand the microbiome too. So the oral microbiome that connects you to the gut. The mouth-body connection, thousands of microbes every day. Let's understand the mouth and let's balance the gut by this very accessible tool we have right here. And so all of these come together. We do a 40 day food plan to kind of remove sugar. One thing with sugar is it's so hard to get rid of, so I kind of take people through removing refined sugar. And then we do two weeks, absolutely zero, to help our bodies kind of understand what it's like to be without sugar again. And to feel like, actually I can go without this, and you know, you don't have to do the zero sugar if you don't want to but, I just recommend it because if your body doesn't understand what it's like to be without it, how can you build that context?

And so The Dental Diet is all about understanding this mouth-body connection. How to eat, busy every day lives today. And how to prevent hopefully a next generation of kids, not to have tooth decay, not to have gum disease, you know not to have jaws that don't fit teeth and needing orthodontic braces. I think orthodontic braces is one of the biggest health epidemics on the planet. And we need to start understanding how to prevent it, otherwise the road we're going down is a very, very kind of, unfortunate one I think.

Wendy Myers: Yeah. I mean, I know I work with my clients on doing metals testing that people have had braces, they have nickel toxicity. And they have other metal toxicities because of having the orthodontics, the metal braces in their mouths for years.

Dr. Steven Lin: You know what, that's one thing that I haven't looked at closely. But that makes a lot of sense because now there's not a lot of consideration as to what those orthodontic brackets are made up of. And so there are some that do have kind of, lower amounts of certain trace metals. But for the most part, they're just thrown in there. Yeah so that's a great point actually, I'm gonna note that down, that's a really, really important one.

Wendy Myers: Yeah I made a correlation with testing people, and I see a high nickel on their test and I always ask, we ask them on the form, have you had braces, and I see, I've noticed a correlation there. Cause I mean, years and years there, that nickel is leaching into their bodies, and nickel is the most common metal sensitivity and it can lead to you know, immune system dysfunction, autoimmune diseases.

Dr. Steven Lin: Yeah, like this is, it's so accessible the mouth. So you can nearly pick up, even if it's you know, I had braces, or I had kind of, you know, I had this root canal treatment 10 years ago. There's usually something there that tells you, kind of a story as to how you've gone down the road to a problem like an autoimmune condition. Because, autoimmune conditions are such long term diseases, there's usually signs that we can pick up first. I just think the mouth really gives us that kind of framework to work in.

Wendy Myers: Yes. Well, Dr. Lin thank you so much for coming on the show. Why don't you tell the listeners where they can find you, and learn more about your work.

Dr. Steven Lin: Sure, yeah. So my website is on www.drstevenlin.com. @drstevenlin on Facebook and Instagram, so I shared a lot of the oral systemic connection. We talked about probiotics, kids dental health, breathing, nutrition. And then my book The Dental Diet is available on Amazon and Barnes and Noble. So you can grab it on there just by searching The Dental Diet. So, yeah, any questions let me know. I love talking about the oral systemic question, people have dental questions out there so, yeah. And thank you so much Wendy for all the work you do, because this is, you know, getting this information out there is so important, and people have to kind of, you know, think about their health in a different way because we have to change this for our kids I think.

Wendy Myers: Yeah, absolutely. I know my daughter's eight years old and I'm taking her to the dentist. She had a couple cavities the last one. And I'm like, oh my god, here we go. Cause I don't want to have her like me, have a whole mouth full of teeth filled with composite, and what used to be mercury. So, yeah we need to really start thinking of changing how we approach our diet and our dental care.

So, thanks so much for coming on the show. Everyone thank you so much for listening. You can learn more about me at meyersdetox.com and you can watch the video and get the transcript for this show, also on meyersdetox.com. And check us out on iTunes. Please take two minutes to leave a review so that we can reach more people and help as many people as possible.

Thank you so much for listening.