Episode 22: Is Dental Plaque Healthy?

Evan Hirsch 0:00
Hey everybody. Welcome back to another episode on the fix your fatigue Podcast, where Today we're going to be talking with Al Danenberg who goes by Dr. Al he is a periodontist and was in private practice for 44 years. He incorporated ancestral nutrition and lifestyle with his leading edge laser protocol to treat periodontal disease. Dr. AL consults with patients all over the world virtually via zoom or Skype regarding animal based nutrition, lifestyle, oral and overall health and the importance of the healthy gut and immune system. He also includes his unconventional cancer protocols since he was diagnosed with incurable bone marrow cancer in September 2018 and was given only three to six months to live. Dr. Al rejected all chemotherapy and is thriving today. I love that. So glad you're here.

Dr. Al Danenberg, DDS 0:50
Well, thank you. Me too. Yeah.

Evan Hirsch 0:52
Dr. Al earned a certified functional medicine practitioner designation as well as the certification as a certified primal health coach. In July 2017. Electric press released his first book crazy good living, I thought it's a crazy good look in which you know, which is based on ancestral nutrition and lifestyle. In 2020. Dr. Al created this certification course offered by the IAB dm, which will bestow the designation of certified biological, nutritional dental professional after successful completion of the program. I'm really excited about talking about dental stuff with you today. And then in August 2020, he published too many books on Amazon for download, better belly brute blueprint, say that 10 times fast, and is your gut killing you, Dr. Al. Thanks so much for hanging out with me today.

Dr. Al Danenberg, DDS 1:40
Oh, thanks for the opportunity. It's a pleasure.

Evan Hirsch 1:43
So let's start off first with your story and kind of learn a little bit about you your background and what brought you to this place.

Dr. Al Danenberg, DDS 1:52
So I'm a periodontist, which means I am a dentist that did some advanced training in the specialty of periodontics, which is the treatment of gum disease. And I was doing that in clinical practice for 44 years, until September 2018. So September 2018, brought a major change in my life. There's a lot that goes into it. But in September 2018, I was diagnosed with incurable bone marrow cancer very specifically, IGA Kappa light chain multiple myeloma with severe lytic lesions throughout my entire skeleton just means I have bone marrow cancer and my bones break very easily. That's what brought me to the doctor because I had some pain in my chest turned out to be some broken ribs. final diagnosis in September was this diagnosis. my oncologist looked at me all the tests, and he basically said, I have an incurable bone marrow cancer. He wanted to start chemotherapy The next day, and I had three to six months to live. That was a very dramatic statement. I rejected chemotherapy, I couldn't understand why I would put myself through all these chemicals and destroyed the quality of my life. When it was an incurable disease. The oncologists thought that being in remission would be beneficial, but it still wouldn't cure the disease. And eventually, I would die from the complications of multiple myeloma with a decrease in the quality of my life. I couldn't deal with that. So I again, I rejected chemotherapy did some some conventional oncology, but no chemotherapy, and created my unconventional cancer protocols. And I did phenomenally well for a year. And in August of 2019, I had a really severe accident, I was brushing and flossing my teeth. In the bathroom, I went to twist to throw my dental floss away. So imagine I'm standing on the floor, bare feet on the floor, bending or twisting my body to the left, maybe 90 degrees. At that moment, my right femur snaps in half, and I crashed the floor. I cracked two more ribs and fractured my right humerus in house. And literally I'm writhing on the floor. Now I lived a year past my diagnosis more than my prognosis. And I thought, this is really going to destroy my quality of life. And I'm thinking, I'm thinking of many things, but I'm thinking this is the end, and I want to die and I'm ready to die, literally ready to die. I'm taken to the hospital, they fix my right femur, because it's going to puncture my right femoral artery, I would bleed to death. They don't fix my right humerus. The ribs don't get treated at all, as you know. And I'm put in a hospice hospital to die September 2009 Just a couple of weeks after I'm in the hospital, of all things as a hurricane coming through Charleston, it has its move. It's called hurricane Dorian. It's moving at one mile an hour, with 187 mile an hour winds, and it's scheduled to strike the hospital. So the hospitals ordered to evacuate, they don't know where to send me, my wife, it's crazy, right? So my wife is an RN, she scrambles to get a hospital bed, they send me to my house, and my wife throws me a little bit of tough love. And she says, Look,

I am in hospice signs catheterized on drugged, but she says, Look, you've, you've done so well on your cancer protocols until this accident, let's get you back on these protocols. Let me get a physical therapist in and see what we can do. Well, a couple of weeks after the therapist comes in, and literally sitting up in bed and starting to walk with a walker. So I revoke hospice start to get off, eventually get catheter out of my body, which is amazingly terrible. And, and actually start to do extremely well get back on my cancer protocols. See my oncologist in October 2019. He's amazed that I'm still alive. So I'm progressing, he has some other things that he wants me to try to do. And in May of 2020, I have a new PET scan, which as you know, is a big scan to look for cancer cells

throughout the body. And it shows no active cancer cells in my entire body. Now, unfortunately, a PET scan only looks at moderate amounts to large amounts of cancer, they can't look at the small stuff, I do have multiple myeloma, it's in the bone marrow, I am, I am not in remission, I have not a cure for cancer. But I have a method, which my with my protocols to really improve the robustness of my immune system, which is everything. And that has a lot to do with what I do with my clients now all over the world, that I talk about a strong immune system, and it has a lot to do with energy and and fatigue. Because there is so much that is involved. You know, fatigue is a syndrome. Therefore, there are many factors that are involved. And all of the factors that have helped me to get where I am today, are the same factors that would help with fatigue and chronic disease, and a host of other issues that were plagued with in civilized society today.

Evan Hirsch 7:35
Yeah, brilliant. Yeah, I thought we were gonna go one direction with this talk, I was going to talk about dental infections, but...

Dr. Al Danenberg, DDS 7:41
But that's another huge factor that affects the immune system that almost no one understands. Let me just mention that I know enough functional medicine, Doc's who do quite a bit with the gut, and quite a bit with diet in their way. And they think they're trying to get a result. And they do get good results. But there are a number of people that don't get results, and they get even worse. And the majority of these people have infections in their mouth that are not obvious. Dental infection does not have to cause swelling, does not have to be painful, does not have to cause bleeding of the gum tissue, although those things are very prominent in dental infections. But if you don't know you have an infection, it doesn't mean it's not there. And the immune system is significantly affected and goes into a dysfunctional state, with this chronic infection affecting its ability to heal your body 24 hours a day, seven days a week. That's a critical element to get under control.

Evan Hirsch 8:49
Okay, well, then let's talk about that. I mean, I'm so interested in the cancer stuff, but maybe we can kind of bring it up, bring it all together here. So then, how does somebody know if they have a dental infection if they don't have any symptoms.

Dr. Al Danenberg, DDS 9:02
The first thing you could do is to look at your mouth and be your own doctor and see if you have any gum inflammation or bleeding. To do that, you just don't look in your mouth in a mirror and say, Oh, I don't have any bleeding of my gums or I'm brushing my teeth and the employee. There are little cleaning picks that you can clean between the teeth. These are silicone very soft, non damaging devices to clean between the teeth where the tooth meets the gum. If you were to get these, the ones that I like are called tp TP easy picks. They're available on Amazon. They're phenomenal. They're very inexpensive. They even can be reused several times if you wash them and dry them. You can clean between the two.

Evan Hirsch 9:50
Well I just wrote a point.

Dr. Al Danenberg, DDS 9:52
Okay, now, I'm sorry, I don't know. I don't like wrote a point. It's very hard plastic and it can jab the gum stab it and damage it. So these are silicone, flexible, little, looks like it routed them Tex, but they're flexible, and they bend in different angles, and they recoil to their natural position. But they don't harm the gum tissue, but they cleaned the unhealthy level of plaque that may be there. But it will stimulate the gum to bleed if there is inflammation. So you can use that between every tooth not only just to clean between the teeth, but you can use it between every tooth. And if you see any pink at all, that is telling you you have gum infection, it's not just a little bit, it's gum infection. Now how severe is it, that's to be just to determine to be determined, but when you have gum inflammation, it has affected your immune system already. As a matter of fact, unless you have damaged tooth fillings or bad dentistry that stuck in your mouth, that's irritating your mouth to get gum infection, this is gonna be a strong statement. Now, to get gum infection, you need to have gut dysbiosis. First, you have to have something wrong in the gut, that affects the immune system number one causes the gut to become leaky, which is increased intestinal permeability, allowing some toxic junk that's in the gut that never should get out of the gut, other than its obvious exit point. So if it leaks, leaks into the bloodstream, you have chronic systemic inflammation that is coursing through your body affecting every organ system, including the mouth. And here's what it does, when you have chronic systemic inflammation, and a dysfunctional immune system. Now, because of this, the healthy bacteria in the mouth start to change, the healthy bacteria are very balanced in the mouth, there are individual potentially pathogenic bacteria in the mouth, but in a state of balance, they all work in for the same cause. But when you have dysfunctional immune system, and chronic systemic inflammation, that balance of bacteria in the mouth changes, and it starts to become pathogenic. And that's when gum disease starts to cause bleeding inflammation, where you'll see it. dental plaque, for example, this biofilm around the tooth and gum that everybody thinks needs to be scrubbed off and destroyed. dental plaque is healthy until it's not healthy. And the big problem is it becomes unhealthy when there's dysbiosis in the gut, and then changes in the mouth change this balance. And then poor food choices, especially sugars, start to feed the potentially pathogenic bacteria to make them overgrow into pathogenic bacteria, then the inflammation causes the bleeding and it gets into the rest of the blood system.

Evan Hirsch 13:16
So this is kind of a it's a bottom up approach. So if you've got the guts to gut dysbiosis, then it ends up affecting the mouth.

Dr. Al Danenberg, DDS 13:23
Yes. And we know that if we look at our primal ancestors, for example, there is a skull that was discovered, I think two years ago, it was dated back 300,000 years to Morocco. And this is a human skull. All it's a lower jaw so all 16 teeth are present. It has a lot of wear, no tooth decay, no bone disease, meaning there's been no gum disease or bleeding of the gums, creating infection in the bone. Yet there are remnants of calcified plaque

between the teeth called tartar or calculus 300,000 years ago. Now, the interesting thing is this plaque is a very protective biofilm. Let me tell you something interesting. This is going on a tangent but it's kind of interesting because you're now you probably have never heard this before. There is no place in the body, where a hard structure pierces the skin and embeds itself in sterile bone except the tooth. The tooth is a piece of hydroxy apatite calcified material that goes through the gum into other surfaces below the gum and embeds itself in the jawbone with just sterile. If that bacteria in the mouth were to get on that slippery surface, it would slide down the tooth root in To the bone and cause the bone to decay or necrose. And you would lose your bone of your jaw and you would die, human species would never evolved. But that doesn't happen. And the reason it doesn't happen is there are many other biological factors under the gum to prevent it. But there is a superficial, natural biofilm that starts the healthy process. And that's the dental plaque. So the dental plaque is made up of two or 300 different species of bacteria. And they have three main purposes. One, it actually produces hydrogen peroxide to kill any other pathogenic bacteria in the mouth and saliva from getting into the space where the gum and the tooth meet. In addition, it has some chemicals that buffer the pH in the dental plaque so that it never gets more acidic than pH of 5.5. So the tooth will not rot or decay. And it also is like acts like a gatekeeper allowing the natural minerals from the food that you eat, especially the saliva to seep through it and get into the root surface to remineralize it 24 hours a day, seven days a week. So it's a very critical surface healthy biofilm, which is very protective.

Evan Hirsch 16:21
Wow, this is radical.

Dr. Al Danenberg, DDS 16:23
It is radical.

Evan Hirsch 16:26
This is great. So then, so then should we be so then is the dental plaque what we're brushing off every day.

Dr. Al Danenberg, DDS 16:33
So when you brush your teeth and clean your mouth, you'll maybe use some dental floss to remove some fibrous tissue fibrous food between the contacts of the teeth. By the way, you should never floss under the gum tissue, unlike most dental professional style you because if you try to floss under the gum, just try it yourself, you'll literally cut the gum, and when you cut the gum, you create a class and you create inflammation and potential infection. And sometimes recession is is the the the the damage that that irritation inflammation will actually cause so so you have to be very careful and not go under the gum. But to clean the gum tooth surface between the teeth. These little cleaning devices, teepees that I just told you about are the perfect method to use.

Evan Hirsch 17:25
Okay, so but what about...

Dr. Al Danenberg, DDS 17:28
Okay, so, yeah, so toothbrushes and and cleaning devices will remove the unhealthy dental plaque, but they still leave the film called the pellicle. If you actually scrub the dental plaque off completely, and the pellicle the your mouth saliva will rebuild the plaque within 12 hours or so. So that's not so critical. Here's the problem though. The dental professionals may tell you, dental plaque is unhealthy. So not only do you have to brush and floss correctly, you have to use anti microbial mouthwashes and anti microbial toothpaste and you have to eat and drink and chew gum that have anti microbial elements to completely destroy the plaque 24 hours a day seven days a week to do that is very unhealthy for the mouth. you're removing its protected biofilm.

Evan Hirsch 18:24
Okay, so is that including more natural anti microbial toothpastes?

Dr. Al Danenberg, DDS 18:33
No, I would never recommend an anti microbial toothpaste or a mouthwash ever, unless there is disease that needs to be treated. And that regimen would be maybe a week to 10 days, there is no reason to kill the microbiome in your mouth get I'll give you example, would you start taking a tablet of penicillin every day just to make sure you don't get infection in your gut? No, it'll kill you. And why would you want to use an anti microbial antibiotic in your mouth every day to kill all this wonderful bacteria? If you were to eat a healthy diet, and to maintain a healthy gut microbiome, which is another story now, if you did do that, your body's natural balance of bacteria will stay maintained. And again, we see that in skeletal remains from air our ancestors 10 to 20,000 years ago, there are many skeletal remains that showed no tooth decay, no bone disease, lots of dental plaque that's calcified to tartar. We don't need to remove any of this stuff on a regular basis. And if you're eating the healthy foods and you're not getting chemicals that are destroying your gut microbiome, you're not going to have this disease, it's going to break down the bone or the teeth.

Evan Hirsch 19:54
So the the skeletal remains don't tell you about their dysbiosis or their microbiome.

Dr. Al Danenberg, DDS 20:00
Well, there are in that regards, No, it doesn't. But if you do some research and you research what's going on in the gut microbiome, there are some very interesting studies that show if you improve the gut microbiome, and change the foods that support the gut microbiome, gum, inflammation disappears, and leading goes away. Without even brushing, there was a great double blind study that was done, maybe two or three years ago in Germany, where they had two groups of people, both groups had active gum disease, and they had active inflammation and bleeding. That's how they knew they have active gum disease. And they were eating a very unhealthy standard American diet, basically, burger fries and a coke or whatever that might be. So they were eating a very unhealthy diet, they had bleeding gum tissue, and they researchers cultured the bacteria, and they saw the kind of bacteria in these very unhealthy areas. Half of the group, the control group could brush their teeth, but they couldn't clean between the teeth, and they still ate their crappy diet. The other group could brush their teeth, they

couldn't clean between their teeth, but their diet was changed and monitored to a healthy diet. After the four weeks of this study, the same parameters were looked at. They looked at the the bacteria, they looked at the amount of plaque there was, they looked at bleeding and inflammation. The individuals experimental group, the ones that ate a healthy diet that could change the gut microbiome had less inflammation, net less bleeding, and plenty of dental plaque, but no pathogenic species that were overgrown, the control group that the same parameters were looked at, they had more inflammation, more bleeding, and lots of pathogenic bacteria in in all this dental plaque. So there are ways to change the gut microbiome, change the food quality, and literally stop the infection in the mouth, if it's just inflammation and bleeding. Now once the inflammation and bleeding gets under the gum and it starts to destroy the bone, the disease changes from Ginger vitus to periodontitis much more advanced than the bone of the jaw has to be treated, as well as the gut. And of course the diet.

Evan Hirsch 22:32
Well, so interesting. So then, what sort of toothpaste you use?

Dr. Al Danenberg, DDS 22:36
Well, you don't have to use toothpaste number one, because toothpaste does not clean your mouth. It's not necessary. But when I used to base and I do love to use toothpaste, because I like the taste, I use a toothpaste called revite and our e vi t i n revive is a toothpaste actually developed by a dentist years ago, it has a chemistry that is perfectly gentle to the mouth, no unhealthy additives, you can literally eat it and it will not harm your gut at all. Most toothpastes have quite a number of chemicals that are actually damaging to the gut microbiome. And I don't recommend that at all. And so it is a good toothpaste.

Evan Hirsch 23:17
Thank you. And then how often do you use it sounds like you don't brush your teeth every day?

Dr. Al Danenberg, DDS 23:23
Okay, so that's a great question, right? I brush my teeth every day. And I clean my mouth every day, I clean my mouth to the point where I know that I'm cleaning, whatever I need to clean around the gum margin if if anything, but I'm not scrubbing it and damaging the pellicle. So I don't use a mouthwash. I don't use a anti microbial toothpaste. revising is not an anti microbial toothpaste. If anything, it supports the healthy microbiome. So I'm not scrubbing the plaque away to become totally bare of the dental plaque and the pellicle. I just am removing maybe a more unhealthy layer of plaque if there is one or just refresh my mouth. It's not critical to do that. However, if you were eating a healthy diet, and everything else was good in your life, to brush and floss every day and clean between the teeth is not critical. Again, we know that from our primal ancestors, and not only primal ancestors, there are primal societies today. one specific is the hodza. In Tanzania now, they have some issues with the hodza and some dental decay but not very much. It's interesting. I can tell you a little bit about why that may be. But the the those people have almost no chronic disease and almost no periodontal disease or tooth decay.

Evan Hirsch 24:49
Why is that?

Dr. Al Danenberg, DDS 24:50
Well, because I have a healthy gut microbiome. And it's not allowing the bacteria in the gut to I mean in the mouth to become dysbiotic Now the hodza do. There was a paper that was published a couple of years ago, I can't remember the researcher, but they studied the hodza. And it turned out that the hodza that were doing hunting for a lengthy period of time, were eating honey, but they were eating also the the honeycomb. And the honeycomb is a very sticky substance, and it could stick between the teeth and concentrate the sugars. And because of that, it changed the microbiome. And they had some decay because of that. The other members of the hodza, that were not eating the, the, the honeycomb did not develop the kind of tooth decay that was prevalent when they ate the honeycomb. There was another study that was done again, in Morocco, maybe 40,000 years ago, looking at some skeletal remains, and they did have tooth decay. And it turned out what they found archaeologically, was that there those individuals took pine nuts and fermented them into a very sticky substance, with with with a high sugar content, apparently, and because it was sticky, it stuck between the teeth, and it concentrated the sugars, change the microbiome in an artificial way and cause tooth decay.

Evan Hirsch 26:20
Interesting. So let's come back to kind of your oral health and like what you do for yourself, so you talk about so you brush your teeth every day, but you don't use toothpaste. How often do you use toothpaste?

Dr. Al Danenberg, DDS 26:31
No, I do use toothpaste I use a robot and I like to relight and but it's not necessary to use toothpaste, you can just brush your teeth with a little bit of salt water or if you want to use a little bit of baking soda. That's good baking soda does a couple things. it neutralizes the acid. If you've been drinking acity drinks for whatever reason, it also can actually remove some food stains that may be on your teeth because it has a slightly abrasive nature, but it's not damaging to the gum if you're just using it in a small concentration. So you could just use the water, you could use some baking soda and you can use revite and which is which is excellent. So I brush at the gum line, I use an electric toothbrush. I love an electric toothbrush, kind of lazy. So I like that you want to brush gently at the gum line maybe at a 45 degree angle horizontally, you're not scrubbing hard. And you're not using a hard bristle toothbrush because you can damage the gum because of the abrasion. I use dental floss just to clean out some of the fibrous foods that I maybe have been eating between the contacts and I use the teepee, inner dental easy picks to clean where the tooth meets the gum and it removes food particles and it feels very fresh when I do that. So I do that. And I do that twice a day. First thing in the morning. Last thing at night and I clean my tongue with an inverted spoon. So you can take a spoon, turn it upside down, go all the way back on your tongue. And then press down just before you feel like you're going to gag and pull the spoon forward. And that will remove unhealthy bacteria and some of the food particles that are starting to

break down on the top surface of your tongue. It's interesting that 80% of bad breath comes from this surface of the tongue. So if you clean your tongue in this way, you'll remove the access unhealthy bacteria. Again, you don't want to use an anti microbial mouthwash you'll kill the bacteria. But you'll kill all the good stuff too. You don't want to do that. You just want to dislodge unhealthy bacteria.

Evan Hirsch 28:35
Brilliant. And then what about what about staining, any tricks for for teeth that have been stained?

Dr. Al Danenberg, DDS 28:43
Well if it's a natural stent or stain from some natural foods, let's say blueberries for example. One of the best ways is to use the baking soda now you can use a more concentrated type of slurry where you take baking soda and maybe some salt water like Himalayan salt water and you can make a very thick paste and then put that thick paste on a toothbrush and scrub it into the enamel surface of the teeth where the stain is. You don't want to scrub that at the gum margin that's going to be too abrasive. That's going to irritate the gum tissue. And if you do that, that will help remove the superficial stain. Now if the stain has gotten into the enamel for whatever reason, more than likely that's not going to remove the stain. But baking soda does a very fine job in removing superficial stain.

Evan Hirsch 29:45
Okay, and then when we go to the dentist and the hygienist wants to pick off all the tartar. Is that okay?

Dr. Al Danenberg, DDS 29:57
So you know I'm a very controversial guy. Right. So I will tell you Yeah, it's okay. But is it necessary? Ah, there's two questions here. Is it okay fine. So she removes the tartar around the teeth and you do it maybe once a year or once every other year, or twice a year. It's only going to be removed and the dental plaque will form within 12 hours, and everything is cool. But is it critical to do that? No, it's not if your mouth is healthy. Now this is it. This is assuming that person has a healthy mouth. Here is a statistic that is very disheartening. 94% of the US population has some form of changeable inflammation or bleeding, not severe, but they have some form of general inflammation, therefore, they have some unhealthy dental plaque. They have some gut dysbiosis. And therefore, the hygienist, by removing the calculus may be removing an irritant that could progress this gum disease into a more serious disease. So it's not a bad thing. But is it critical if you have a healthy gut, if you have a healthy diet and things are really good in your, in your life, let's say you're in that 6% of the US population, you're not to brush your floss, you don't have to have your teeth clean that frequently. Or ever. Again, look, all I can tell you is when we look, scientists look at skeletal remains. And these are people that didn't have gut dysbiosis because they didn't have the foods that caused this gut dysbiosis they're not. They never ate the chemicals or were exposed to dirty electromagnetic fields in the emotional stress. Maybe they had emotional stress, because they were being killed by worriers. But, you know, if they weren't controlling their gut health, they didn't have damage to the gut lining. They didn't have chronic diseases, they

didn't have periodontal disease, and therefore, any plaque and calculus that formed didn't create periodontal disease. And we know that because we're looking at skeletal remains that show the tartar, but no bone loss from all of this, for the most part.

Evan Hirsch 32:23
So that it seems like if you're one of those 94% that has leaky gut, dysbiosis mouse, not 100%, then it makes sense to brush and floss. But you can do it in a more healthy way, like we've talked about today.

Dr. Al Danenberg, DDS 32:36
Absolutely. And I think everybody should brush and floss and use these little teepee pics, because you're not going to create damage if they're doing it correctly. And only make it a more healthy mouth. The most important thing is you need to get the gut healthy. And that's what is missing. In most of the People's protocols. They take care of their mouth, they go to the dentist and the dentist says, Oh my your gums are bleeding, you need to brush and floss harder. So you go back and brush and floss harder. And you come back in six months. And it's dental hygiene and says, Oh, I still see bleeding, you're obviously not cleaning your mouth? Well, well, that's not the reason. Most likely the reason is you have gut dysbiosis it's never been diagnosed before. And it because you're in this state, you need to begin treating your gut health and change your diet. And all of a sudden that gum bleeding will go away.

Evan Hirsch 33:30
Brilliant. So let's pivot a little bit. And let's talk about root canals. Okay, what is your opinion about root canals healthy, not healthy.

Dr. Al Danenberg, DDS 33:40
The general consensus would be my general opinion would be not healthy. Now, that's not true all the time. And I'll give you some examples. Let's say let's talk about when it probably is not healthy at all. You have a tooth that has decay, the decay has gotten into the nerve of the tooth, the nerve has died, bacterial infection has occurred. And that bacterial infection is pouring out the base the root, and you're developing swelling and pain. And that's called a necrotic tooth. And that tooth, if it needs to be saved needs a root canal. So root canals today generally mean that the infection has to be removed from the inside of the root. And an inner type of filling is put into the root where the nerve used to be so that the tooth can stay in the bone. Theoretically, that makes all the sense in the world. From a medical standpoint, it's almost impossible because there are many, many micro tubules that extend from inside this canal just like if you think about a lead pencil, the carbon in the center of the pencil is like the pop or the nerve chambered in the center of the root of the juice. There are microscopic canals that go from that Paul chamber, into or the canal into through the root into the bone structure. Biologically, it's almost impossible to sterilize it completely and fill it completely said nothing is still infected that could leak into the bone. That's, that's the the practical problem. Today endodontist, who are specialists in dental in root canals have some new technology that may improve the ability for them to do root canals, they have lasers, which are going to do a much better job sterilizing the area, they have ozone that also helps to sterilize and protect the area, and they have some different type of sealing

devices and chemicals that can seal off the canals better, that might be better. But then again, it might not. If there is infection as poured into the bone, the problem is that infection may still last and stay there and still spread in the bone. There are some situations where a tooth if it were fractured, and it never was abscessed, but it was let's let's say fractured hip, let's say a front tooth, where you're hit in the mouth with a baseball and it snaps in half. Meanwhile, that tooth is in a terrible state, it needs to be extracted, or maybe a root canal and a crown build up. Does that make sense? So far? Yeah, to do that root canal, the nerve of the tooth has never been infected. And an endodontist can better remove that damaged nerve now, which will never regrow, they can remove that. And it's easier to fill and make sure that tooth is healthy, because it's never had an infection seeping into the bone. So in that situation, the prognosis of a well done root canal with laser and ozone therapy or maybe not ozone therapy, but definitely laser could create a successful environment, but it's not a guarantee.

Evan Hirsch 37:13
Okay, so then, for those dentists and endodontists, who are using laser or ozone therapy, is it just better to pull the tooth.

Dr. Al Danenberg, DDS 37:23
Now that's a very controversial subject, in my opinion, it would be better and if the tooth is removed, several things must be done. When the tooth is removed, there is a membrane that attaches the root to the bone. That membrane is called a periodontal ligament, and it could be highly infected if that tooth was abscessed. That entire ligament and the residual infection must be completely removed. It means the term is curated out of the tooth socket so that the entire bone socket is very healthy, so that it can heal properly. If there are remnants of this periodontal ligament that's infected that remain, and the bone starts to heal around it, it can bury the infected tissue inside the healing bone. And over time, it can create a severe abscess situation necrotic situation, which is colloquially called a cavitation. And that can spread through the blood system through the lamp it can spread through the nerve canals all around the body and spread to other organ systems throughout the body, which is very, very unhealthy and dangerous.

Evan Hirsch 38:46
Okay, so how do you know if you have a cavitation?

Dr. Al Danenberg, DDS 38:51
Sometimes you'll have pain and swelling in the area where a tooth was extracted. And that would be a telltale sign that you have infection. There are x rays that can see the infection. It's standard dental X ray is a two dimensional picture. And it may show the damage in the bone and it may not. There are what's called a cone beam CT scan which is a three dimensional X ray that gives the dentist a better picture 360 degree picture of what could be happening in that area. So if there is necrosis in the bone, that dentists can see it better. And if that's the case, and there's no pain or anything, but if that's the case, then that area in the bone can be entered surgically. That abscess or infection can be removed and the bone can be made to heal properly and that infection will be completely removed.

Evan Hirsch 39:52
There can be times where there's an infection you can't feel.

Dr. Al Danenberg, DDS 39:56
Frequently that's the case and that's the problem because you don't know What has been documented is that you could have a tooth extracted like a third molar wisdom tooth extracted, maybe have problems with the healing, but you didn't really know that there was a problem because it healed eventually, okay, at least no pain. And then, decades later, 10 or 20 years later, you could have some kind of a chronic disease developing. And it may actually be traced back to that cavitation in the in the bone. That's the problem, it's very difficult to do to make that connection. But it is a very real possibility. That's why if there are areas in the chronic tissue in the jaw bone, especially from an infection, like a failing root canal, or an extraction that never healed properly, even though there's no pain or swelling, that needs to be corrected, you just can't say, Well, I'm going to watch it and see if it gets worse. If there's infection, it's necrotic. It's already worse, you know, you're not feeling it, but it's already affected the immune system. It's already in the systemic circulation, and it could be directly affecting another organ system without you knowing it.

Evan Hirsch 41:18
Hmm. So where can people go to find somebody to help them with it? Obviously, obviously, not all dentists are created equal, and they have different knowledge bases, even those who are more biologic dentists. What sort of device do you have?

Dr. Al Danenberg, DDS 41:32
There are several organizations that support holistics slash biological dentists. And their websites actually have a means to put your zip code in and find dentists that are actually members, but not necessarily tell you the quality of that dentist. There are obviously there's word of mouth that you know of a dentist that does this and they have a great reputation. But at least those organizations can direct you to the people that are more biologically oriented. The International Academy of biological dentistry and medicine is one, the International Academy of oral medicine and toxicology is another those who have excellent websites, where they also have a page for potential for patients to pension potentially find dentists in their area that subscribe to basically that philosophy of biological dentistry.

Evan Hirsch 42:32
What was the first organization?

Dr. Al Danenberg, DDS 42:35
International Academy of biological dentistry and medicine, biological dentistry and medicine? I electrical downstream? Am I a bdm.org? And the i o n t.org.

Evan Hirsch 42:49
Okay, great. And so when you were practicing, did you have this philosophy already?

Dr. Al Danenberg, DDS 42:56
So 44 years ago, I was a conventional dentist and I had no idea what was going on. And the sad thing is dentists that are graduated today don't have any idea either. I only learned more of the biological concepts, maybe seven or so years before I retired from practice. And that's when I began to incorporate healthy diet and and gut protocols with my periodontal therapy. And I started to get results that I never got before because patients could heal because I was treating the major notices of infection, the mouth, as well as the gut, and of course, changing their diet. So about seven years or so before I retired in 2018. So it would be about 2010 2011 I began to incorporate these concepts, but it was not because I learned it in dental school. It was all the continuing education that I did quite a bit of independent research and and learning from my medical issues too.

Evan Hirsch 44:06
Excellent. And so then what is your practice looks like today? It's you're helping people you're coaching. What does that actually look like one on one groups, right?

Dr. Al Danenberg, DDS 44:15
So I don't do any clinical treatment anymore. Since the 2018. diagnosis. I do quite a bit of virtual consultations all over the world. I do individual consultations, either specifically dental work gut related combination of gut or oral chronic disease. I also consult with a lot of patients that have cancer because of what I've done. And I do a coaching program a 12 week coaching program to help people become more medically metabolically balanced. And that has a lot to do with their dental health. I look at their dental x rays. I look at their diet by way of a three day food journal. I look at their gut microbiome and discuss all of these elements. I also look at cell membranes. mitochondria and ATP production and and put together a very customized protocol for people to actually get their selves into a better state of health and wellness.

Evan Hirsch 45:12
Brilliant sounds like an amazing program.

Dr. Al Danenberg, DDS 45:17
I think it is.

Evan Hirsch 45:19
And where can people learn more about you?

Dr. Al Danenberg, DDS 45:21
My website is Dr. Dannenberg calm Dr. Da n E n BRG Comm. I have a blog page that has over 500 or so blogs over the last six plus years since I've been doing the website, there is a contact page where you can actually type in questions, the actual questions come to me directly. I answer all my email so I can certainly help with any body that has a question. There's information. There is information on the website about the consultations, the coaching program, all that is available on the website.

Evan Hirsch 45:56
Brilliant. Dr. Al. Thanks so much for sharing your knowledge with us today. Really appreciate it.

Dr. Al Danenberg, DDS 46:02
Thank you appreciate the opportunity.