Transcript: #340 Root Canals vs Implants: Are All Root Canals Created Equal? with Dr. Valerie Kanter

Wendy Myers: Hello everyone, my name is Wendy Myers. Welcome to the Myers Detox Podcast. You can go check out my site at myersdetox.com. There like on this podcast, we discuss everything related to heavy metal and chemical detox and inform you about alternative health care. Today, we're going to be talking about root canals versus implants and if all root canals are created equal. Are all root canals bad? The answer may surprise you. We have Dr. Val Kanter on the show. She's an integrative endodontist who does root canal treatments and biological dentistry, but she's very, very advanced.

Wendy Myers: She's been very proactive in educating herself, consuming everything she can, all the research to help her patients not only avoid root canals but helping to regrow their roots. She does properly done root canals, if needed, with really advanced techniques that we talk about today on the show. We're going to be discussing new ways to regenerate your teeth nerves and clean infection in the root. This can prevent the need for root canal treatments in the first place. You don't get that at your conventional dentist office. We'll talk about the pitfalls of conventional root canal treatments including infection, systemic inflammation and the high failure rates, which studies show can lead to major health issues. Especially, increases in the number of root canal treatments that you have increases the chance of developing major, chronic health issues.

Wendy Myers: We'll discuss that, and why and why not, all root canals are to be avoided. The conventional wisdom, even among biological dentists, is that you shouldn't ever do root canals. Just pull the tooth and get an implant. That's really kind of black and white. We discuss why that isn't the case and the alternatives. We'll talk about new root canal techniques that don't have the infection issues and infection rates seen with traditional root canal treatments, conventionally done today. Also, why you don't want to do a root canal treatment with a regular

dentist. You need to see an endodontist that specializes in this procedure, and we discuss why.

Wendy Myers: We'll talk about the pros and cons of implants and the testing that should be done before choosing an implant. We discuss the new research that's showing you can actually regrow teeth. You can create this scaffolding in your mouth and then your body will regrow a new tooth, so you don't have to get an implant. It's really, really exciting. It's a fantastic show today. I know you guys listening are concerned about the heavy metal levels you have in your body and toxin levels in your environment. I wanted to create a really quick quiz that you can take that will give you the relative levels of toxins in your body based on some lifestyle questions.

Wendy Myers: You can take that quiz at heavymetalsquiz.com. Following that, you get your results based on your quiz. You'll get a free video series that educates you on the most common questions and frequently asked questions that people have when they're thinking about doing a detox. Where do you start? What is the number one mistake people make? Some supplements that you need that are key to do a detox. You get that free video series after you take the quiz at heavymetalsquiz.com. Our guest today, Dr. Val Kanter, is a third generation dentist, board-certified endodontist, naturopath and certified practitioner of integrative biological dentistry and medicine.

Wendy Myers: She is the founder of Integrative Endodontics, a Los Angeles based clinic and a way of practice that takes a holistic approach to root canal therapy and other regenerative dental procedures. The focus is on relieving a patient's pain and getting to the root cause of infections and diseases affected by the oral systemic connection. This patient-centered approach involves a combination of high tech modalities, biomaterials and compassionate care that stimulate natural healing and physical, mental, emotional and spiritual wellbeing.

Wendy Myers: Dr. Kanter is on a global mission to integrate her unique qualifications and experience into effectively fostering positive social and wellness changes by raising the consciousness of the medical and dental community. You can learn more about Dr. Kanter and work with her at i-endo.com. Dr. Kanter, thank you so much for coming on the show.

Dr. Val Kanter: I'm very excited to be here, Wendy. Thanks for having me.

Wendy Myers: So why don't you tell us a little about yourself and how you got into what is essentially, biological integrative endodontics? First, tell us what exactly is endodontics?

Dr. Val Kanter: Endodontics in itself, endo means inside, dontia means the tooth. It's essentially doing treatment and procedures deep inside of a tooth. Traditional endodontics is very different from what I have found myself in today. It was quite a journey to get me here. I started off as a little child running around my dad's dental office when I was a kid. II grew up around dentistry, really, mainstream dentistry. His

uncle was a dentist and it's in the family. I went through my journey and went to the University of Florida for 10 years. I was in Florida, in Gainesville, a very small town. I was very concentrated on school and just doing my thing.

Dr. Val Kanter: The day I finished, I went ahead and moved out to California. I was ready for the big city life, the weather, much less bugs and things like that, over on the California side. I really started my journey of self-exploration. It's interesting in dentistry because you have to set yourself out from the crowd. In California, specifically in Los Angeles, there's a dentist on every corner. Now, being a specialist, there are much less of us around, but still there's plenty. There's plenty more than any dentist can refer to. It's a pretty interesting thing trying to figure out how you practice and how you set yourself apart. It just happened for me naturally.

Dr. Val Kanter: I was going to yoga and starting to learn about meditation. That journey actually took me into understanding about fluoride, water fluoridation and the effect in the pineal gland. Then from there, I dove really deep and started learning about the effects of fluoride on the entire body. I worked closely with the Fluoride Action Network and that opened up a new world for me. I learned about amalgam fillings and the damages that could be causing. It really stopped me in my tracks because I had been practicing dentistry with passion and really getting in this purely to help people, to make them feel better, to get them out of pain and get rid of infections.

Dr. Val Kanter: Specifically in the field of endodontics, that's what we do, we help people through pain and infection and try to save their teeth so they can eat, smile, and be happy. When I started learning more about the root canal controversy, it hit me pretty hard. I figured, "There has to be a way. I have to find an answer to this." I spent years doing continuing education every other weekend. Every single dollar I made, I put towards education and really diving deep. I found out about ozone therapy and then laser therapy and PRF using these biological agents that we can actually just take from the body. We use these agents to put back in specific ways that will help the body regenerate naturally.

Dr. Val Kanter: It's been a journey to develop this practice of integrative endodontics, which is essentially putting together all of the pieces of the puzzle and really looking at patients in a unique way. We use precision-based medicine or dentistry to look at each person and look at their genetics, look at their nutrition and start to break down what treatments are going to actually be best for them. We look at what may be a burden on their body and then customize a treatment plan for each patient.

Wendy Myers: Yeah, primarily what you do is root canals. Are there any other procedures that you do in your practice?

Dr. Val Kanter: Absolutely, my main passion is regenerative dentistry, regenerative endodontics. Regenerative endodontics is basically keeping alive any part of the pulp, which is that nerve complex deep inside of our tooth that's taken out in a root canal

procedure. Regenerative endodontics is about keeping that alive, regenerating it, completely trying to grow it back from scratch. I do have a lot of patients that come and see me, that were told by multiple people, "Hey, you need a root canal treatment". We're actually able to prevent it, save the tooth and keep the vitality in that tooth, which is so important. Our teeth have a very highly sensitive feedback system to the brain.

Dr. Val Kanter: It's actually the fastest response in the human body. Oh sorry, it's second fastest only to blinking. You can blink so quickly if something's about to get into your eye. When you're biting down, maybe you've bitten on something really hard before like a little piece of sand or a rock or something in your food that accidentally got in, your jaw muscles immediately know to release. These are fast reactive fibers inside of the pulp or the nerve tissue deep inside the tooth. When you have a root canal procedure, those are removed. It's troublesome because you'll end up biting harder on teeth that have root canal treatment done to them.

Dr. Val Kanter: You have to be careful and the dentist really has to know how to restore those teeth, and in the big picture of your bite, put them back in place. There are still nerves around the outside of the tooth called the periodontal ligament. Even if you've had a root canal procedure, those periodontal ligament nerves provide neurofeedback to your brain, which is awesome. You can still feel how you're chewing and you can get this complex system, this orchestra that's going on, of signals to the brain. You can move your food around, put it into a bolus, swallow it and you can still get the nutrition that you needed by breaking the food down.

Wendy Myers: We're going to get into restoration in a minute. I wanted to focus first on the conventional wisdom around root canals, because many people that are aware of biological dentistry, say that all root canals are bad. What do you say to that? I think there's like a spectrum, everyone is different, there's a time and a place for certain procedures. There are times when people need root canals as opposed to just pulling the tooth. A lot of biological dentists are saying, "Don't do a root canal, just pull the tooth." What do you say to that?

Dr. Val Kanter: Yeah, a big percentage of biological dentists are basing their wisdom and their knowledge off of studies. Incredible studies that Dr. Weston Price did 100 years ago. He took infected root canal, treated teeth, and he put them under the skin of rabbits. He saw that the diseases that the person had, that that tooth came from, immediately started to develop in the rabbit. This was very profound in that time, and biological dentistry is using these studies in order to say, "Hey, all of these root canals have to go." Even Weston Price said himself, "There are certain individuals that are susceptible to these systemic illnesses being caused by extra inflammation in the body, say caused by a root canal infection that's festering in the mouth, but some people are absolutely fine if they have a proper treatment done, the infection is cleared. They can heal beautifully from that."

Dr. Val Kanter: There's a growing group, especially of young professionals in the biological dental community that are more accepting. I think one of the most important things for all of them to understand, and specifically for patients to understand, is that there is advanced technology out there now that has completely changed the scene when it comes to endodontics. The way that root canal procedures have been done for the last 100 years is just not adequate. Even the AAE, the American Association of Endodontists, who are the overseeing organization for all endodontists, they say, "Hey, we're not able to completely clean these teeth out all the way. We're not able to get out all of the debris and all the toxins."

Dr. Val Kanter: That can be an issue, of course, but that was 10 years ago. We're starting to see that, "Hey, maybe we can actually clean these teeth out and sterilize them in the way that we need to."

Wendy Myers: So, what happens? When someone goes and gets a regular old root canal from their dentist, and it's packed with the standard materials, what happens in that tooth that then can affect someone's health negatively?

Dr. Val Kanter: This is a big question. This is so important, and this is really one of my calls to action for your listeners. If you're told you need a root canal procedure, you need to find a specialist. There's over 20 million root canal procedures, probably more, done every year in the US. Most of those, 75%, are performed by general dentists. Now, general dentists, when they're trained in school, do a handful of root canals. Less than 10 for sure, and at some schools even less than five. Any additional training they get is from their own continuing education or representatives from different companies that come in and tell them how to do the procedures.

Dr. Val Kanter: Most of them are not using magnification. High powered magnification, like a microscope, which is really, really important. A lot of dentists use something called loops. They have little magnifiers on the glasses, but some of them are only looking at two or three times magnification. With the microscope, you can get up to 20 times magnification. You can find things inside these teeth that need to be cleaned that are otherwise missed. I see it all the time in my practice. The second major thing is finding someone who's using activated irrigation using either laser technology or another technology using sound energy, called GentleWave.

Dr. Val Kanter: We'll talk more about those today. But first, the way traditional root canals are cleaned is that the dentist makes a small opening inside of the tooth and tries to locate the main channels of where the nerve lies. Then they use manual irrigation, meaning they have a syringe filled with cleaning solutions. It's usually sodium hypochlorite, which is more commonly known as bleach. They take that solution and they just start manually flushing inside the tooth with a little small needle on the end of the syringe. Now, that's getting some debris out, but it's surely not getting all of the debris and is not cleaning deep into the tubules and small crevices that exist in these teeth.

Dr. Val Kanter: That's the way that it's being done, unfortunately, most of the time. For most people that have root canal treated teeth in their mouth, that's how it was performed. It's astonishing how many of these actually work and actually heal. We see it all the time when we see healing. We see patients, as endodontists, who come in with giant lesions or infections in their jawbone and a year later we see resolution of those. That's why there's this huge split. You have biological dentists over here saying, "Hey, these things are toxic," but then you have endodontists saying, "Hey, my patients are getting better and they're saving their teeth," and there's a middle road.

Dr. Val Kanter: What I'm actively doing and teaching is trying to educate endodontics about nutrition and other things that we need to incorporate in this integrative model of dentistry. I'm trying to help open up the biological dentists and teach them about new technology that's available, and how skilled some of these specialists are. It's a twisty path, but we're getting there. I've committed my career to help raise awareness and to teach as many dental professionals as possible. To open up the eyes of the public so they know they need to see a specialist.

Wendy Myers: Yes, and that's why I wanted to have you on because this information is so key. The stuff you are talking about, I haven't heard anywhere, really, in all the information that I consume about this stuff. After someone irrigates the tooth, there are substances that are packed in there in an attempt to seal the tooth, what is going on there and what can go wrong in that process? What kind of bacteria can grow and can there be systemic infections from this root canal? What's going on there?

Dr. Val Kanter: Absolutely, once these teeth are cleaned, especially using the traditional way, we know there's bacteria and there's the debris and things left behind. From that point, the general area of that canal may look semi-clean or it may look clean to the naked eye or even under a microscope with 20 times magnification. I can't see dentinal tubules in these small areas. We do our best to clean the teeth, and then they're filled with, probably 99% of dentists out there and specialists are using gutta-percha, which is mostly a natural substance. It's actually from a tree, it's what's inside golf balls, but there are some heavy metals and things that they put in there in order to make them visible on a radiograph or in an X-ray that you have taken at the office after the procedure. We need to know how it's sealed generally. Is the whole root canal filled from top to bottom, at least?

Dr. Val Kanter: That's traditionally, what's been done. Now, we know there's gaps around this sort of plastic-like material and sealers that are used. There's been a variety of ones used over the years, zinc oxide, eugenol cements were very popular back in the day, then they moved to resin cements. What we're finding is that all of these cements over time, shrink. What happens when something strengthens and then retracts? We leave gaps, and those gaps are prime for any bacteria that were left in the teeth or toxins to travel through. Of course, they can make their way out into the bloodstream.

Dr. Val Kanter: We find that these bacteria start to congregate in areas that are already susceptible. For example, if you have plaque building up in some of your arteries around your heart, these bacteria find them and they go and they create a home there. There was a study that looked at these heart attacks in 100 patients. They took the plaques out and they started looking, "What's in these plaques?" There were tons of bacteria in them and most of them were from oral bugs. A lot of them, the majority, were from failing root canal bugs. The bugs that you see are very persistent and they stick around even after a root canal procedure is done.

Wendy Myers: Yeah, I had some tests done. I went to Dr. Panahpour and then I worked with you, also, to try to tag team what to do with some of my teeth. In one of my root canals, there were all different types of bacteria. It was shocking to see those results. What kind of bacteria can be growing in the root canals?

Dr. Val Kanter: Well, the ones that are most pathogenic for us are these anaerobic bacteria. They get into these areas where there's not a lot of oxygen and then they start to transform black pigmented bacteria like Bacteroides or Porphyromonas. I see them all the time. I literally see black material coming out of these teeth and it's toxic. They thrive, they start talking to each other. It's called quorum sensing, when these bacteria communicate and they transform into very, very, very, virulent pathogens.

Wendy Myers: So are there safer and more advanced ways of performing a root canal therapy? Can you go into some of the things like advanced procedures and materials that you use when you do elect to do a root canal on someone?

Dr. Val Kanter: Yes, absolutely. This is my second call to action for your listeners. If you are told you need a root canal procedure, find the specialist was one, and find a specialist that's specifically using advanced irrigation technology. That's either the Fotona Erbium:YAG laser, which uses laser-activated irrigation or the GentleWave system. I'll break each one of them down for you. The laser-activated irrigation is used with the Erbium:YAG laser. Now, Erbium:YAG is the type of crystal that's inside of the laser, and when energy goes through this crystal, it creates a certain wavelength of light. Now, our human eye cannot see this wavelength, it's 2,940 nanometers long, but what happens is this wavelength is very specific to target water molecules.

Dr. Val Kanter: What happens is the water actually gets a shockwave formed in it when each photon of light hits it. So inside of a root canal system, instead of just manually flushing it, the example that I use is, if you had a bathtub that was just completely dirty, there's mold growing on this thing and if you just fill the bathtub up with water and splash around a little bit and then drain it, you're not going to be cleaning any of that. If you have a tsunami that comes through the window, it's potentially going to clean all of that stuff off the tub. That's what's happening inside this really tiny space in the root canal. We're able to put the laser tip just at the top of the tooth, into a solution that creates shock waves that travel down and in every crevice of the tooth, and it completely disrupts the

biofilm on contact. I have videos of biofilm that you see just getting thrashed and it's gone in seconds.

Wendy Myers: Nuke that biofilm.

Dr. Val Kanter: Yeah, it's amazing. I know it works because I've seen it and I've seen the healing that can happen afterwards, it's an incredible tool. Now, that laser does many other things. I actually use it for the regenerative dentistry I was telling you about. If you have a deep cavity that's close to the nerve and your dentist is using a traditional drill to clean it out, when you're using the drill, you're removing the superficial decay but you're getting deeper and deeper and closer to that vulnerable nerve tissue. What are you doing? You're driving bacteria in the metal instruments down and towards the nerve tissue. You're actually bringing bacteria into the deeper structures unless you have a series of 10 sterile burs, and you're changing it throughout the procedure. I don't know very many people doing that. I maybe know one or two.

Dr. Val Kanter: The beauty of a laser is that with every pulse of energy that hits the tooth, it's a sterile pulse, so you're just evaporating the decayed tissue structure. You can get down to the nerve very gently and you can keep the nerve alive. Even if you actually touch the nerve with the laser energy, it just cleans and sterilizes it. It all has to do with the certain parameters and settings that you have on the laser, you can affect different tissues differently. While I can cut into tooth structure with a higher setting, I can gently remove parts of inflamed nerves with a lower setting and preserve the healthy nerve underneath or I can stimulate water inside the root canal system and create shock waves.

Dr. Val Kanter: They're all with different settings, just a couple of touches on the screen of this very advanced laser system. This is my go to, and I highly recommend that every endodontist and dentists start looking into laser dentistry and specifically the Fotona or an Erbium:YAG laser. This is the way to go because of its affinity for water, and our bodies are made of water, mostly water. That's why it works so well in the human body. It actually even tightens the tissue. You can get rid of wrinkles and all of these procedures are done just from inside the mouth. It's a pretty phenomenal machine.

Dr. Val Kanter: Now, the other way to clean root canal systems out is to use the GentleWave. This is using sound energy. We all know about sound healing and vibrations in the body, and we all respond to these different frequencies. So this sound healing, it creates a platform, a closed system, and it cuts over the tooth and then it uses a suction and the vacuum and this huge power of irrigating solution starts getting flushed into the tooth. Then the sound waves are generated, and that disrupts and cleans the inside of the tooth. Now, this company, GentleWave, is making huge strides and really getting out to all of the endodontists across the US. It's very easy to find an endodontist in your area using the GentleWave technology, just go to gentlewave.com, click on “find a practitioner” and you'll get a list of specialists in your area that are using it.

Dr. Val Kanter: That's a call to action, hey, check that out. You can also go to fotona.com and find out, "Hey, where are these laser dentists? I want to see one," because besides just the root canal story and endodontics, the laser can really change the whole way you practice dentistry. I've discovered that myself over the last five years.

Wendy Myers: What part does ozone play when you're working with root canals and saving teeth?

Dr. Val Kanter: Ozone is amazing. I'm so grateful that I discovered it and entered into the world that had already been there for a very long time. I was late to the party but just in time. Ozone is incredible, you can use it in two ways. You can use it as an antimicrobial, so it's going to kill viruses, any pathogens, bacteria and fungi, all of it on contact. You can imagine how important that is when you're dealing with dental infections. It can also stimulate your own immune system in a natural way. I use it in both ways. As far as cleaning out the root canal procedure, it's my final step. After I use the laser throughout the procedure and then I use the GentleWave at the end, then I go back to the laser.

Dr. Val Kanter: I'm really hitting it hard with everything that I can. Then the final step, once the channels are open, I put the ozone gas in. I use a small needle to go all the way down to the tip of the root, and sometimes I can even extend it out into the bone where the infection is. I start applying a proper dose of the ozone for a proper amount of time. That varies depending on the size of the infection, but the ozone gas can infiltrate into areas that liquid can't get. Gas is obviously going to be the easiest to penetrate into some of these areas, so it's a good adjunct in my practice. It's really, really helpful in the regenerative endodontics.

Dr. Val Kanter: If I'm trying to prevent a root canal and keep a nerve alive, I found that the ozone is actually the best thing to calm the nerve down if it's bleeding. To sterilize the surface of these deep fillings, underneath these deep fillings and then placing the proper biomaterials. We have new materials that are called bioceramics in dentistry, and they're amazing. They're basically made of minerals and they can actually stimulate your own body's stem cells to recruit them to the area and to grow the necessary tissue. If it's near nerve tissue, it'll grow nerve structure or dentin. Actually, if you put the material right on top of the pulp, the pulp cells make our dentin. They make our tooth structure, it comes from the pulp, the soft tissue.

Dr. Val Kanter: If you put the material on the pulp, you'll actually grow a new tooth structure. It's incredible. I see it all the time. We do the treatment and a year later, we take an image and you can see a new layer of tooth structure that has grown down under the material. Very, very, very cool stuff.

Wendy Myers: Wow. When you're doing a root canal, what is the material that you use to pack it, to fill it in and to seal it off?

Dr. Val Kanter: That same bioceramics. The way that I've been practicing for the last couple of years is, I actually inject the bio ceramic material. It starts off as a liquid, and then over a few hours, especially in the presence of any humidity coming from in and around the tooth, it starts to set and it expands on its settings. So while most old materials would shrink and you would get gaps, this actually expands. It only expands a little bit, just enough to seep into some of those little crevices and it creates a very alkaline environment. The pH gets up to 10 or 11 when you place this material.

Dr. Val Kanter: It's antibacterial in itself and it recruits cells to start healing infections that may be in and around the tooth and the bone. It's incredible material. It's like calcium, silicas and there's zirconia. All of these elements work together to create a beautiful thing that the body has really been accepting well, in dentistry.

Wendy Myers: I came into your office and you were trying to decide if my tooth, one of my teeth were salvageable or not, or if I needed to have it pulled. Ultimately, the root had already died long ago. Then there was a big crack in the tooth and I had to have it pulled. I was hoping I could save it. When someone does get a root canal, the root canal that you perform, how long can that last? We know some root canals fail or some root canals will start to grow infection. What is the lifespan of the type of root canal that you perform?

Dr. Val Kanter: A root canal can last for your entire lifetime, if it's done properly, and if you're healthy enough and don’t have a ton of systemic inflammation in your body. The third really important key is that you have to keep that tooth very clean. A root canal tooth is not like any other tooth in your mouth, it doesn't have all of the natural defense mechanisms anymore, so it's extra vulnerable. You have to make sure you're flossing and brushing that tooth and that your gums around the tooth are very healthy. If your gums are bleeding around a root canal tooth, you're asking for a disaster. Bacteria will get around the outside of the tooth and then they can start to diffuse in because there's no protection mechanism inside the tooth anymore. That's really, really important.

Dr. Val Kanter: The materials themselves will last, they hold up, they do really well. They don't dissolve in oral tissues. Potentially, it could last the rest of your life. The reason that these root canals are failing is because there's bacteria and toxins left behind. There's sometimes completely missed roots. Dentists aren't finding all of the channels in there, which is a major issue. A lot of the time teeth can crack. like yours. If you have a cracked tooth, I definitely recommend you take it out, because bacteria will always be able to find their way in that crack and it will continue to recontaminate the tooth. I'm glad you went with that decision.

Dr. Val Kanter: What's really important and my third call to action for your listeners, is if you have had a root canal treatment in the past or even just had a lot of expensive dentistry, crowns or restorations, go get a 3D scan, a 3D cone beam CT scan. It's actually the number one thing to do if you've ever had a root canal procedure in

your mouth. The reason is we can detect four times the amount of infections in the mouth than you can with just a normal X-ray. You will not believe when you look at a normal X-ray, everything looks absolutely fine, and then you look at the 3D scan and there's a huge infection, the size of a centimeter, in the jaw that you could not even detect with a normal X-ray image.

Dr. Val Kanter: The study says, 400% chance of diagnosing properly if you're using 3D imaging. You don't want to take the scans all the time, you want to get one and then you can always follow up. If you have a few procedures, you can follow up years later and check and make sure they're working. That's part of our recall program. We bring you back, we take a scan when it's the right amount of time after. We make sure the tooth is healing and we support the body using ozone. The other mechanism of ozone, which is the immunomodulatory mechanism, where we can inject ozone around the teeth to stimulate your immune system, keeping blood flow to the area, increasing ATP and collagen synthesis in the area.

Dr. Val Kanter: That's also performed with our laser treatment, our low level laser treatment, which is a little different than the other parts that I was telling you about, where you're working on the tooth. Low level laser treatment, think your infrared, your near infrared saunas. We have a laser that's on the idea of that, but the wavelength is so powerful it penetrates through the whole jaw. We can stimulate all of the cells in and around the tooth to make sure it's healthy. This is all part of our recall program with our patients.

Wendy Myers: That's fantastic because like you said, it's so important to get this cone beam scan. They don't have these at regular, conventional dentist offices and they're not terribly expensive. I found a place where it was $200 to get one, near me in Orange County. They're not terribly expensive. I'm sure there might be some insurance that pays for it. This is so key if you're looking to get proper dental care. If you wait, if you have a tooth that has an infection in it or you have a cavity and then you just wait and wait and wait and don't do anything about it, it could eventually turn into a root canal. Then it's much more expensive and much more problematic to address. You want to catch this stuff as early as possible.

Dr. Val Kanter: Absolutely, and one other thing that comes to mind when you say that, is I have some patients that have been with a biological dentist for years and they come and see me and they say, "Hey, I didn't want to have a root canal because I know how bad that is." I take an image and I see a huge infection on their tooth. I'm like, hey, this is where it comes to a misunderstanding of the terminology. There's a few terms that are thrown around, like root canal, it gets confusing for the public and even dentists, we're not talking about it properly.

Dr. Val Kanter: A root canal is a space, an anatomical structure in every one of your teeth. A root canal treatment is when you have the procedure done, and a root canal treated tooth is a tooth that has had that procedure done. When people are saying, "Oh, root canals are correlated with all of these systemic illnesses, heart disease, cancer, etc.," what they really mean and what the research actually

shows is that it is a root canal infection, which is the fourth term. It's not a tooth that's had a root canal, it's a tooth that has an infection around the root. That can be in a necrotic or dead tooth, or that can be in a root canal treated tooth.

Dr. Val Kanter: Those are the two ways you're going to see those infections. It's called apical; meaning apical around the root, periodontitis; inflammation in the periodontium or the area around the tooth. Apical periodontitis, there's a ton of research coming out how it's connected with systemic illnesses. Even in the mainstream journals now, they're saying, "Hey, it's increasing CRP levels in the body, it's increasing all of those pro inflammatory cytokines and mediators." There's a direct connection now. There's a very strong correlation, so we have to start addressing them.

Dr. Val Kanter: I tell those patients, when they come in and they've been avoiding a root canal procedure, but they have a root canal infection, I'm like, "You actually have what you're trying to avoid. You have the worst case scenario right now." It's important that you do something about it and injecting ozone can be helpful. It's a temporary fix in some cases, but ozone travels through the blood. If you have a dead nerve, there's no blood flow in there anymore. While it can help the immune system deal with the infection that's around the outside of the tooth and the bone, it cannot get up inside the tooth. Ozone cannot travel up inside the tooth if the tooth is dead.

Dr. Val Kanter: Therefore, you have to actually go inside and clean it or you have to take the tooth out. Now, there's consequences to taking your teeth out. One, you're cutting off the neural network that tells your brain what's going on and those beautiful feedback mechanisms we were talking about earlier, when you're chewing on your teeth, you're losing that if you take your tooth out. It's a domino effect. The less teeth you have, you're more likely to get some of these neurodegenerative diseases because you're not using these neural pathways that were given to us. Then of course, you're cutting off that meridian channel.

Dr. Val Kanter: That's something else that we work with. I know you know a lot about energy flow in the body, and I have a miHealth device as well. I learned about you years ago actually, just searching and reading about that online. I was thrilled to meet you and to have you over. I just talked to Cyril a couple of days ago and he said hello. We use that in our practice, too. Of course we can address certain regions and certain meridian lines by treating these areas, because even if a procedure was done beautifully and the area heals, we know there's still scarring there. I teach my patients how to recreate energy flow in that area.

Dr. Val Kanter: There are certain yoga poses where you can do acupressure on certain areas on the meridian line. There's a lot of cool things that you can do even at home, by getting a miHealth device or doing some of these things to keep energy flowing into these areas.

Wendy Myers: Yeah, it was really interesting because I had a root canal on this very front tooth. I had talked to you guys about maybe redoing it at some point. It's interesting

because on that meridian lies your lower back area and your bladder and some other things that I always have problems with, and that are always coming up on my NES Health scan. I'm like, "What a little coincidence that is." When people are looking to get a root canal, what are your thoughts on the pros and cons of getting a root canal treatment versus getting an implant? That's the other option that people like to do, but the implants aren't without their problems either and failure rate, too.

Dr. Val Kanter: Of course it's always going to be a case by case basis when there are certain situations. Sometimes I open these teeth up and they're so infected, the whole tooth looks dark, black or gray. Then there's certain cases where it's like, "Hey, this thing's got to come out." Then we're left with minimal options. We put nothing there. In some cases, you can do a bridge or a restoration that is actually superficial and doesn't have to enter into the bone. An implant is a great option if you're not able to save your natural tooth and you have enough healthy bone around the area.

Dr. Val Kanter: There's a couple of types, there's titanium, there's ceramics or zirconia implants now. One of the most important things is to test your body and to actually see what you're compatible with. This is one of the things that we have accessible in the office, too. There are tests, Biocom is one company and Clifford tests, where you can actually just do a quick blood draw and you send it to these companies and they will give you a 50 to 100-page book on which dental materials you're compatible with. A lot of these are looking at Type IV hypersensitivity reactions, but still, if you can see, "Hey, this material is going to work and this isn't," it's very, very helpful in your treatment planning.

Dr. Val Kanter: You can also do metal testing to see if you're sensitive to titanium implants. There's a company out of Europe called MELISA, and you can send them your blood and they can tell you, "Hey, titanium is a no go." A lot of people are sensitive to titanium, more than you would think. I think it's causing irritation, and I've read studies about some of the titanium particles actually disassociating from the implant and getting incorporated into the bloodstream of the person. It hasn't been around as long for us to really know. We do see a lot of failures. I see infections around them all the time.

Dr. Val Kanter: It's not really the end or the answer, but it is a great option. Again, you have to keep it clean. You have to keep your gums clean and go for your cleanings as often as you can.

Wendy Myers: I was reading something that showed that the increased number of root canals you have, so the more root canals that one has, the increased incidents of disease. Can you talk a little about that?

Dr. Val Kanter: I was just reading a paper as well, it was looking at an animal study and they induced root canal infections to see what went on in the systemic body. What was happening. If they just created one root canal infection, it didn't really alter the systemic markers. If they created four, there was a significant increase in

systemic inflammation in the body. They were looking at CRP in certain biomarkers like that. Yes, for sure, the more you have the more at risk you are especially because how are those procedures being done? Then, all goes back to, again, most of these root canal procedures are not being done properly.

Dr. Val Kanter: Our body may be able to hold on if we just have one or two. The more you have, especially if you're a susceptible individual and you don't have the proper genes to take that root canal healthily in your body, it can be a major issue. In fact, there was a study that looked at failing root canals. In 70% of the failing root canals, these people all had a specific genetic polymorphism in their ability to make IL-1 beta, which is a major inflammatory marker in the body. It's connected with the leaky gut and everything. These people, these 70%, produce way more IL-1 beta.

Dr. Val Kanter: Therefore, the root canal treated teeth were failing. They were getting these recurrent infections, whereas someone else who maybe didn't have that gene maybe would have been okay. That procedure actually worked okay for them. It really goes back to precision care and finding out how susceptible are you to disease? What's going on in your body? Are you nutrients efficient? Doing micronutrient testing. I supplement all my patients, making sure they have the vitamin D that they need. What's interesting is that there was a study on implants, looking at implant failure. Vitamin D deficiency was twice the risk factor for failure of implants over smoking, which is pretty surprising because everyone in dentistry was like, "Oh, you can't smoke, you can't smoke". No one was testing vitamin D levels before they did these large implant surgeries.

Dr. Val Kanter: It's becoming more and more known now and slowly we're working on incorporating this into more dental offices across the US and the world.

Wendy Myers: Yeah, I think if you have had a number of root canals and they were done conventionally, you need to be hyper aware that these are potentially creating infections that are taxing your immune system resources, which are limited. Those resources could be going to fighting actual infections in your body. You are much more susceptible to other infections or your immune system being overwhelmed if you have these constant infections just generating in your gum tissue on your root canal treated teeth.

Dr. Val Kanter: Absolutely, it's a contributor to meta-inflammation or chronic low-grade inflammation throughout the body. This is what's connected to every major chronic illness that we're seeing these days, so we don't want to create any extra burden. This is something that you can go and get treated and you can get it treated properly. I just had a patient yesterday that came in, I hadn't seen him in five or six years and we took a CT scan. I saw all of these root canal treated teeth that were done, I don't know, 20 years ago, he said. He had infections on every single one. Now, I didn't have a 3D scanner six years ago when I saw him. I was just doing my traditional treatment that I knew was great with my microscope. Now he's just blown away.

Dr. Val Kanter: He was like, "Everyone needs to know about this." He said, "You need to be writing articles, the Union. We need to get these in all of their little magazines that they get and everything." I said, "Okay, let's do this. We have to inform the public of the need for the 3D imaging, they need to see a specialist. Specifically, they need to get the advanced irrigation techniques and the treatment." That's done by probably about 20% or less of the practitioners out there. You have to do your homework and find one that resonates with you.

Wendy Myers: Let's talk about tooth regeneration. This is really exciting to me because it's not about a choice. It's not like choosing either a root canal or a tooth implant, there's other choices. How do you go about regenerating the teeth to avoid an actual root canal?

Dr. Val Kanter: Like you mentioned earlier, it's really important to come in right away, as soon as you know something's going on because the sooner that we deal with these problems, the better. The procedure is critical, like I said, to use laser techniques to clean out the tooth properly, using the ozone therapy to clean the deeper areas and to calm the nerve tissue down, using the bioceramic materials. Then restoring the tooth properly so that it's sealed and you're using a biocompatible material. I see so many patients, a lot of the young girls that come in and they say, "Hey, I had this filling placed a year ago, it's so sensitive, it hurts." The filling is not even that deep. I have had 100% success so far, with going and removing the filling with the laser, ozonating the floor, placing the bioceramic and then placing a bio-compatible ceramic, permanent filling material on top.

Dr. Val Kanter: The next day the patients call me and they say, "My tooth feels perfect." I think it's just a matter of finding someone that's going to take the time and care to do these steps properly. I have an educational program, I have courses, you can make an access on my website, i-endo.com. You can click on “Courses” and find, where am I teaching. You can learn these series of steps. I teach at UCLA, so I'm slowly integrating this in with the students and trying to get it into the curriculum. It's challenging to break through procedures and the ways that they've been doing things forever. Find someone who's open to regenerative endodontics, as it's called, and there's for sure, at least one specialist in your area that will give it a go.

Dr. Val Kanter: A lot of us are passionate about it. I can't say all endodontists do it, but it's definitely a major passion for me, trying to keep the teeth alive. It's my goal to teach more and more dentists how to do these procedures properly and restore the teeth properly so that the bite is in harmony. If your tooth isn't fitting right in the bite, it can lead to so many issues. Your head position changes, you get pain in your neck and back, you can have an open mouth. Now you're basically sleeping and your mouth's open because the way your teeth don't fit together, your tongue goes back and that leads to sleep apnea.

Dr. Val Kanter: It's a major domino effect backed by not having an occlusal positioning and restoring the teeth properly. There's other regenerative procedures, Wendy,

though that are super exciting that maybe you're referencing. For the last 15 years or even more in endodontics, we've been able to take certain teeth that are actually dead and bring them back to life. It's really, really cool. It's not every tooth, and if you've already had a root canal in the tooth, it's not really a candidate for it. The younger you are, the better. When you're a kid, your chances are even higher, and it's definitely worth a try. The worst case scenario, if it doesn't work, you can just do the full root canal procedure. How this procedure works is you go inside and you actually do the first half of the root canal procedure, which is the cleaning half.

Dr. Val Kanter: You go into this dead nerve and you clean everything out, but instead of placing that bioceramic material all the way into the root, you actually get the body to create blood flow to come up into the tooth. Sometimes we use PRF, which is Platelet Rich Fibrin. We actually draw your blood, a vial of it, and we spin it in a centrifuge in the office. Then we can actually get a little tiny membrane that we can put down in the tooth. This membrane is incredible, it has tons of growth factors and stem cells in it. It can actually promote your body to create angiogenesis, which is new blood vessels, new blood flow.

Dr. Val Kanter: You get that blood flow to come in from the bottom of the tooth and it carries with it certain stem cells that can reside and live down at the base. Once those come up, you still place that same material, this bioceramic material is magical. I use it in every single aspect of what I do, just in different ways and in different consistencies, but we place that right on top of the blood clot. Sometimes the tooth will literally come back to life and you'll see it starts to grow and form a complete root structure. It's called revascularization, and it's really a phenomenal procedure.

Wendy Myers: Integrative Endodontics, bringing dead teeth back to life. I love it. What part does PRP play in what you're doing? I love this, it's like the PRF you were talking about, but that was used in my tooth as well when I actually had a tooth extracted. Then PRP was placed in there to help it to heal faster and regenerate, etc.

Dr. Val Kanter: Exactly, it's an incredible tool in dentistry now. PRP is very similar to PRF. The only difference with traditional PRP is you add in an anticoagulant. A lot of people in medicine that are using it want it to stay liquid so that they can inject it in a knee or in a joint. You probably use PRP that's extremely similar to PRF, maybe just a slightly different spinning cycle on the centrifuge. Essentially, it’s the same idea and you create a membrane. When you had your tooth extracted, you generally will have had a huge void there in that space where the tooth was. Our teeth are bigger than you think, once you pull it out and you start to feel around and are like, "Oh, that's missing now."

Dr. Val Kanter: In that void in a traditional extraction site, it will just fill with blood. Now, that blood has a bunch of red blood cells, it also has other immune cells, and slowly, your body has to get rid of any cells that die and start to grow new blood vessels in and collagen. What the PRP and PRF does, is it jump starts that healing

process, about 10 days to two weeks. That centrifuge is actually doing this process that your body would do naturally, but it's speeding up the whole thing. When you put these little membranes in, you're already two weeks ahead of the healing process and what that means is faster bone regeneration that's going to grow into the site. We use it during surgeries that I do around the roots.

Dr. Val Kanter: I also did a study with Dr. Rick Miron, where we actually used the PRF and we placed it onto stem cells that are inside of the tooth and it started to grow a new tooth structure. There's a lot of really cool stuff that's happening. We're using that material. Usually when I'm using the laser and I'm cleaning out the decay in these deeper areas, I try my best to not touch the nerve tissue. If I can prevent accessing the nerve tissue and keeping it completely natural, it's the best, but sometimes the decay goes right in. In those cases, I use the laser to, layer by layer, remove inflamed tissue. I get down to an area where the nerve tissue looks healthy, you would be surprised, it almost looks a little bit like cooked spaghetti

Dr. Val Kanter: Once I see that nice layer, I put the PRF in a liquid form over that area and sometimes in a solid form as well. Then we put the bioceramic on top of that and you get a new structure for it to grow. There's all these different levels of regenerative endodontics. There's just growing little rims of tooth structure, to growing an entire root back. It's happening, it's part of our practice today, but what the future holds we hope is that we can actually grow a new tooth if we need to. If a tooth gets infected, we can take it out, we can put a scaffold in and a whole new tooth can emerge out of the body using natural substances. There's new research coming out on that every month. We're just trying to get it perfect so that we can start using it in humans.

Wendy Myers: That's amazing. So you can pull a tooth out and place a structure there where a new tooth can grow?

Dr. Val Kanter: Yeah, there was a new study that just came out. I'll send it over to you. It was talking about using a scaffold to just grow a new tooth.

Wendy Myers: I love that. I love that.

Dr. Val Kanter: Yeah, it’s amazing.

Wendy Myers: If you've caught anyone's attention that wants to come work with you personally, where can everyone find you?

Dr. Val Kanter: Again, you can check out my website, it's just, i-endo.com, or you can google Dr. Valerie Kanter, and it should come right up. We're more than happy to talk to and work with any doctor. I love the Functional Medicine Community, any dentist that wants to know more, there's tons of opportunities for that, and patients. Astar at my front desk is awesome and she can answer any questions that you guys have. We'll get you in the right direction, even if you can't come out to LA personally. We'll help you find someone in your area that can help.

Wendy Myers: Fantastic, I love that you're using NES Health and the miHealth, also.

Dr. Val Kanter: Yeah, me too.

Wendy Myers: You’re incorporating bioenergetics into your practice, it's awesome

Dr. Val Kanter: I have it on me all day.

Wendy Myers: I've never heard of a dentist that's using the miHealth. That's great. Everyone, thank you so much for tuning in to the Myers Detox Podcast. Dr. Kanter, thank you so much for coming on the show, that was so interesting. It was so good. I've had many, many, many dentists on the show and did not even come close to this key information. Thanks so much for coming on the show.

Dr. Val Kanter: I'm glad to be of any help. Thank you so much, Wendy. Thanks for all that you're doing as well.

Wendy Myers: Everyone, thanks for tuning in. I'm doing this show, I do this podcast because I want to give you the information that empowers you to make the choices, to meet your health goals and dental care is so important for you. If it's done wrong, it can have detrimental effects on your health. You've got to find a good dentist in your area or travel to one where you can get the treatment that you need that can salvage your health, and turn it around, also. Thanks for tuning in and I will talk to you guys next week.