

## **Healthy Mouth World Summit**

**Guest: Dr Robert Gammal**

### **Root Canal Devastation to Your Health and Solutions if You Already Have Root Canals**

**Will:** The next expert to share with us here today in the Healthy Mouth World Summit is Dr. Robert Gammal. Dr. Gammal graduated from Sydney University in 1974 and has worked as a dentist in both Australia and London doing all the things he was taught at university, which included poisoning many people with mercury, fluoride, and root canal therapy. He became proficient at it for the next thirteen years, and also managed to poison himself in the process.

In 1981 he delved into the world of Shiatsu, and a new phase of his life began. New understandings brought radical shifts to his appreciation of what he was doing in dentistry. He continued to study a variety of massage and other healing modalities. And by 1987, he left the dental world to pursue a career in massage.

This continued for three years. And with new understandings, he entered back into the world of dentistry. Dr. Gammal was fortunate enough to study with Dr. Hal Huggins and many other great teachers who opened his eyes to the effects that dental treatment can have on the health of the whole body.

In 1994, with the support of other colleagues, they began the Australian Society for Oral Medicine and Toxicology. And, so began the dissemination of information about mercury amalgam and root canal therapy to the Australian population. Dr. Gammal has produced two documentaries. 2004 saw the release of his first

documentary, *Quecksilber: The Strange Story of Dental Amalgam*. The second documentary, *Rooted*, was released in 2006 and goes into the issues around root canal therapy. Listeners can find more information about Dr. Gammal via the internet at [RobertGammal.com](http://RobertGammal.com). He currently works on the south coast of Australia, and lives deep in the forest. "Life can be wonderful," he says.

Dr. Gammal will be speaking with us today on the dangers of root canals to your health, and solutions if you already have root canals and how to avoid them altogether.

Dr. Robert Gammal, welcome to the Healthy Mouth World Summit!

**Dr. Gammal:** Thank you! It's a pleasure to be here!

**Will:** Thank you for coming and sharing your expertise with us. The title of your talk here is "Root Canal Devastation to Your Health and Solutions if You Already Have Root Canals." Let's start off with addressing, why is it, in your opinion, for us to all clearly understand the risks of root canals? Why is it important for us to grasp that?

**Dr. Gammal:** Well, there are literally millions of root therapies being done every year. Certainly in America and Australia and most of the western world. The extent of root therapy and the number of root therapies means that most people in their society are being affected. We're told by our professors and deans that it is critical to save the tooth at any cost.

We're only told as dentists as dental students when we're being taught that the cost of the root canal is purely a financial one determined by the number of roots on the tooth and how long it takes the dentist to do that job. The real cost of the root canal in terms of people's health, the affect on the community, the affect on the family is not even a consideration in dental teaching.

So, it becomes really critical to get an idea that this treatment, which is supposedly the state of the art of saving a tooth has other side effects that dentistry doesn't wish to talk about. If dentistry did decide to go there and admit to these problems, then there's a whole bunch of generals. The G.P. dentists are considered the army of dentists. The generals are the specialists. And these people call themselves endodontists, "endo" being inside the tooth.

They'd be out of a job. And there's not many generals that want to get out of a job. And especially not a very lucrative one. So, I think it's very critical for people to understand that this so-called state of the art treatment may be affecting their health.

The biggest issue, of course, is that when it does affect health, the person is going to go to their medical doctor, not back to their endodontist or dentist. So, when there is an arthritic joint or a cancer or a multiple sclerosis or some other horrifying disease, the person goes to their doctor. There are very few medical practitioners who have a clue what dentistry does. So, there is a massive divide. And, it's very difficult, then, to form a proper diagnosis when you're treating the symptom only.

**Will:** Right. This has been a common theme in a lot of the interviews that we've done recently is that one of the problems, really, is kind of an overcompartmentalization of the being.

**Dr. Gammal:** Oh, divide and conquer! Keep everyone dumb. I'm sure if Dr. Kennedy would have been telling you about fluoride, keep everyone dumb.

**Will:** Exactly.

**Dr. Gammal:** And nobody knows what's being done. There's not, I think, any area of medicine that would conclude that it is a good idea to keep dead, infected, or gangrenous tissue in the body. Dentistry calls it root canal therapy. It is that simple.

**Will:** So, from your estimation, how many people are negatively affected by what you call root canal therapy? What we have here in the U.S, we call a root canal...

**Dr. Gammal:** Root treatment, root canal, root canal therapy, they're all interchangeable. They all mean the same thing as far as I'm concerned. So, if I go into root therapy, please understand that I mean root canal in terms of the American concept.

How many people are affected? I'd probably say everybody.

**Will:** Wow.

**Dr. Gammal:** And, if you look at the German literature, there are quite a few quotes that clearly state that any dead tooth acts as a focus, which takes us on to a different area where we're talking of a focal infection and neural interference as two different things. But, effectively, everybody's health will be affected.

The same way that if you put in an amalgam filling with mercury: everybody's health will be affected. It may take a long time before you see clinical symptoms. It may take a variety of people before you see clinical symptoms. If people were to have a root therapy, and then walk out of the dental surgery and drop dead, then dentistry might start paying attention. But, sadly, it might take a year or two before clinical symptoms do emerge.

As well as that, there are many people who live very successful, happy, comfortable lives with root canal. There are many people who live very happily and smile very happily with their root canaled teeth, but their arthritic joints are getting worse.

So, when we get rid of those dead teeth and the arthritis disappears, that's when you can start saying, "Hey, there's a relationship." Otherwise, the person's just going to the doctor for their arthritic treatment. Does that make sense?

**Will:** Yes, it does!

**Dr. Gammal:** When we're looking, it's really broad spectrum to say, "Everybody's going to get effected." But, there are so many various disease states that are associated with it that most of these people are going to doctors, not dentists.

**Will:** Right. So, root therapy or root canal is a routine part of modern dental treatment. Can you please explain to us generally why you and many others like you in the dental profession, kind of on the fringe, if you will, or the unacceptable, unconventional dentistry, say that it's such a dangerous process?

**Dr. Gammal:** It doesn't work. That's a really quick answer. It doesn't work. All of the aims of root therapy are unachievable. Why is it so dangerous? That sort of should come down the track because there are so many toxins that come out of a dead tooth that can negatively affect health. A one-hour chat isn't going to cover that.

Why is it dangerous? Because of the toxins that are coming out of the tooth. Why is it unachievable? Well, that's where I'd like to first answer, if that's okay with you. And maybe there's a lot of people listening to this program who don't even know what actually is involved in a root canal.

**Will:** Yeah. Maybe let's back up...

**Dr. Gammal:** Is it okay if I just come in from that point of view?

**Will:** Definitely. Yeah, maybe even explain what the procedure is what it's supposed to be doing.

**Dr. Gammal:** Right. And that might, then, lead us into the disaster side. When you look at a tooth in somebody's mouth, what you're looking at is what we call the crown of the tooth. It's covered with white stuff that we call enamel, which is a fairly dense, amorphous, calcified material. That's what gives us our pearly white

smile. The rest of the tooth is made up of a material that we call dentin. So, the root of the tooth and the extension of that root of the tooth that goes up underneath the enamel is what we call dentin, which is a tubular structure.

Down the middle of the root is an open space called a canal, which opens at the end of the root and through which you get blood vessels and nerve fibers coming in and out of the tooth. And the rest of the pulp chamber is filled with connective tissue and tissue fluid.

So, in the very center of the tooth is a canal filled with blood vessels, nerve fibers, connective tissue. That's encased in a hard substance called dentin, which, as I said, is a tubular structure. And those tubules run from the root canal surface on the inside of the tooth to the outside of the root and to the enamel in the crown of the tooth.

So, instead of looking at this structure, now, as a two-dimensional diagram, which is what dentistry likes to show, think of it as a three-dimensional substance. If you've ever picked up a tooth and looked at it and turned it around in your fingers...

So, the dentin tubules open and connect with the rest of the body, the full length of the tooth, and all the way around the tooth. The end of the root -- what we call the apex in dentistry, the end of the root where all the blood vessels and nerves are coming in and out of is an open hole. The aim of root canal is to clean out that canal and seal it up. That's what the process is all about.

But, really, the process is about trying to sterilize the tooth. Okay? So, the big problem that we face with dead teeth or teeth that supposedly need a root canal treatment is that there is a lot of dead tissue in there which breaks down and becomes gangrenous. And there are usually a vast array of bacteria, 99% of which are anaerobe. And well over 100 different varieties have been identified.

We're talking about an area of the body that contains bacteria very happily. And they live very happily in that environment. So, the aim of a root canal is firstly to clean out all of the tissue from the canal itself. And then to use various medicaments to sterilize the tooth, which means kill all of the bacteria. And then use a variety of medicaments and what are called gutta percha points of rubbery type of material to attempt to seal the canal so that there is no chance of any bacteria going into the tooth from the mouth or from the apex of the root. And there is no chance of anything escaping from the tooth into the body. They're the aims of root canal therapy. Does that make sense?

**Will:** Yeah, yeah.

**Dr. Gammal:** Okay. So then we're faced with a dilemma. We're faced with a dilemma of how do we do this. As I said, the dentin itself is a tubular structure. The canal down the middle of the tooth contains the least amount of soft tissue. Most of it is contained, like 90% of it, is contained in the dentin tubules. Okay? And the accessory canals are run through that dentin.

I liken it to the tap root of the tree. If you were to take the dental pulp out and dissolve the tooth away, it looks like the tap root of a tree, the main canal going down with lots of branches coming off it.



Now, it's impossible to get down those branches. It's impossible to get into the dentin itself. So, the best we can hope for in root therapy is to actually clean out all of the dead tissue from the canal itself.

The research clearly indicates that no matter which technique is used to do that -- and there are quite a few that dentistry has developed -- but no matter which technique is used to clean out the actual canal, between 30% and 50% of the surface of the canal will remain untouched. Now, that's the published literature in the dental journals. Okay?

That means there's a whole lot of dead tissue that's left in the canal itself, let alone what's actually left in the dentin tubules. Put that into perspective because everyone thinks little microscopic tubules can't do much damage. Well, Weston Price, back in 1920 worked out that if you were to put all of those dentin tubules end on end on a front tooth which only has one root, you would end up with three miles of tubing. Now, the diameter of each one of those dentin tubules will take up to about 8 bacteria across in diameter.

**Will:** So it's like a highway! [Laughs]

**Dr. Gammal:** It's a highway. Exactly. Well, put 3 miles of tubing with 8 bacteria across the diameter, you've got billions and billions of bacteria. You've got a mega amount of dead tissue within that 3 miles of tubing. Now, that's just on a single-rooted tooth. Obviously we have teeth with 2 and 3 roots. So you multiply it there.

All of the tissue that remains in that system becomes gangrenous. And if you've got a gangrenous big toe, you're going to have that removed before it kills you because the toxins that come out of gangrenous tissue are so potent that they'll all kill you very quickly.

So, that's one major failing in root canal treatment. You cannot get rid of all of the dead tissue. In fact, you can only get rid of a very, very small amount of the dead tissue no matter what technique is being used.

Next, is the issue of bacteria. And, as I said, we've got a huge variety of bacteria. The aim is to sterilize the tooth, to get rid of all the bacteria. Well, I'd like to quote to you from the British dental association from 1996 where they state clearly, "It is well-known that total sterility of the root canal system is impossible and that the aim is thorough cleansing and obturation," or sealing. Well, I'd like to hear what thorough cleansing means because it obviously doesn't mean sterility.

**Will:** Yeah, really, unless you're getting rid of everything, you're still asking for trouble.

**Dr. Gammal:** Well, it's the same nonsense to say, "Look, we'll wash the instruments instead of autoclaving them. We'll make them clean instead of sterile. And that'll be okay in any operatory. That's not acceptable in medicine. That's not acceptable in dentistry. Of course, we need to autoclave and sterilize our instruments. If we don't, the bacteria that are there can multiply. Does that make sense?"

**Will:** It does. It does.

**Dr. Gammal:** We've even got the British. We've got the Australian Dental Association in 2007. We've got the American Dental Association admitting that it's impossible to sterilize a tooth.

**Will:** So, you mentioned Dr. Price. How long has this information been known?

**Dr. Gammal:** Dr. Weston Price brought this information to us in the 1920s. People like Dr. Hal Huggins, who I have the utmost respect for, spent a lot of their time and money putting that information into a form that is readable to all of us instead of pandered in personal notes. There are many people who have been screaming about it, but very few who want to listen. And it's interesting.

Dr. Weston Price was, at one stage, president of the American Dental Association. He was well-funded with a research team to do the research that he did. The results brought him into disrepute within dentistry. And modern day dentistry laughs at his research. There are people like Dr. George Meinig, who was one of the founding members of the American Association of Endodontics, who, toward the end of his career, came across Weston Price's work and had the courage to write a book called the *Root Canal Cover-Up*.

As a leading endodontist, not only in America, but in the world, to write such a book explaining Weston Price's research, brought him from the top of the pile to the bottom of the pile almost overnight. And he became somebody who cannot be respected because, you know, we don't agree with the status quo. Like I said, there would be a lot of endodontists who would be out of business.

So, this idea of sterilizing the tooth becomes a major issue. And I've put that to a number of endodontists in Australia at various conferences and lectures that I've been to. And each one of them has now taken the attitude that, "You must understand that we take the tooth to a physiologically balanced state." And that's what I'm being told these days because, now, most endodontists will admit that it is impossible to sterilize a tooth. When I've asked these endodontists what a physiologically balanced state is, how they determine that they'd achieved it, and what happens to the anaerobic bacteria one year from that date, I never have received an answer. I never have received a definition because it's absolute nonsense.

**Will:** Yeah, and then they look at you cross-eyed and want to walk away from you.

**Dr. Gammal:** Oh, they literally turn their backs and walk away from me. And I stand up and scream at them and say, "Give me a definition of what 'physiologically balanced' means!" You're telling me this in front of a whole bunch of my colleagues and other dentists who are doing this treatment, and we're pretending to give a patient an end product of a tooth that is not going to harm them. Well, it's nonsense.

You've got anaerobic bacteria. They live very happily without oxygen. They live in a biofilm, and it's impossible to get rid of them. Weston Price in 1920 tried almost all of the medicaments that we have today except for antibiotics to try and sterilize a tooth. And he found that the only way of sterilizing the tooth was to boil it for over half an hour. There is no other way of sterilizing the tooth.

**Will:** That's kind of problematic if it's still in your mouth. [Laughs]

**Dr. Gammal:** The problem gets worse because since Weston Price's days, we've developed antibiotics. And dentistry has seen fit to develop medicaments that we can put into a root canal which contain various antibiotics supposedly, again, to kill the bacteria. The antibiotics can get down the dentin tubules only a very short distance and in such low concentration that the only effect that they have is to produce antibiotic resistance amongst the bacteria. So, if those bacteria then escape from the tooth and localize as in infection in another part of the body, how do you treat that?

We've got a major problem in hospitals erupting in medicine right through the world in super bugs. We've got super bugs that aren't being affected by antibiotics. Well, I put it to you that dentistry could be one of the causes of that major problem because it's well established, it's well published, that all we do with antibiotics in a tooth is cause antibiotic-resistant bacteria to grow. We have a major problem there.

And then, we're supposed to use a variety of other medicaments to cleanse the tooth or sterilize the tooth or kill off as many bacteria as possible. This is the word from the published literature, by the way. The medicaments that are still being used are such that they could be classed as either cytotoxic, which means they kill cells, or full on carcinogenic, the phenolic compounds, which cause cancer. They do not kill the bacteria.

Then, we're going to assume that we've gotten to a state with the root therapy treatment where it has stopped hurting, everyone's happy, we'll fill the canal or,

as dentistry calls it, obturate, which means that we're going to seal up the canal. We've got to put in special cement. The cements that are used, again, are either cytotoxic or carcinogenic.

There's one which is one of the most popularly used ones -- I'm not sure that I can mention the name. I might be causing problems here -- but, there's one which is very commonly used which breaks down. And this is from the material safety data sheets of the different manufacturers and the products -- which breaks down to ammonia, carbon monoxide, and formaldehyde.

So, if you want low levels of formaldehyde floating through your body all of the time -- and I mean to every cell of your body, including your brain -- and knowing how carcinogenic formaldehyde is, you have a root canal with this material. It's that simple. So, there's a variety of ways that root canals become a major problem. And when I say simply that the aims can't be achieved, that's what I'm talking about.

**Will:** Right. They just fail.

**Dr. Gammal:** Well, dentistry calls a failed root therapy one which hurts still. If it stops hurting, that's a measure of success. Dentistry says that if we can take an x-ray of the root canal tooth and the abscess that was obvious pre-root canal, is beginning to disappear, then we have a successful treatment. The success of dental treatments is always localized to the mouth, to the teeth.

An unsuccessful root therapy is one that continues to hurt, but has obvious abscess on the end of the root on an x-ray. But that's as far as the thing goes.

If you include disease states and systemic health effects as part of what makes a root therapy fail, I think you'd find the numbers would go up rather dramatically.

**Will:** Sure, sure. So, do any of the latest techniques such as using a laser or using ozone make a difference from your perspective?

**Dr. Gammal:** From the literature that I've been able to get hold of and read, there is no technique. And I mean no technique whether you're using a laser or ozone or anything else, which is going to get rid of the dead tissue.

**Will:** So, even if we were successful in actually using ozone, let's say, to go down all the dentin tubules and kill all the anaerobic bacteria in the tooth, that doesn't mean that that they still wouldn't have a bastion that they could go hang out after like, "Hey, the party's over. Let's go back in now."

**Dr. Gammal:** To a point, that's true. Dentistry would argue that if you can seal the root canal properly, then there is no access root for the bacteria. Unfortunately, the very best you can hope for with any of the sealing techniques, by the way, is a ten percent leakage. And that's considered good.

If we were able to completely eliminate all bacteria from the tooth, that would be a major step forward. And, then, I think you would see a great drop off in the side effects in the disease states.

**Will:** Right. Of course, we'd still be having the dead tissue in the tooth, though. So that's always going to be the issue, too.

**Dr. Gammal:** Well, you've got the dead tissue. You've got the actual materials that dentistry places in there that the dentist is going to put into the tooth -- as I was saying, the root-filling cement. And there's another way of addressing it, which goes beyond this, sort of, localized contamination and toxins. And that's more from the German understanding of medicine, which is about neural therapy and neural interference.

And then, any dead tissue, scar tissue, foreign bodies, definitely including dead tissue -- and a root canal tooth is dead tissue -- that can also create disease states in other parts of the body. And if I may, I'd like to just sort of separate the concepts a bit. We've got a concept of focal infection, which basically says we've got an infection in one part of the body. Either the toxins or the bugs could escape from that part that's infected, go to another part of the body, organ, tissue and create a disease state there. That's called a focal infection.

And most of medicine operates on that principle, so that if you've got a raging infection, swelling, pus, all that stuff, you've got to treat it because that could spread to other parts of the body and affect your health pretty badly.

Same thing with a tooth. The concept of neural interference and neural therapy... There's a term which is called a focus of neural interference. And what this is saying is that a dead tissue, scar tissue, foreign body, can interfere with the body's regulatory mechanisms. And they are often associated with acupuncture meridians and various other ways of the body compartments communicating with each other, which is beyond the nervous system so that an area of neural interference can potentiate or create disease states in other parts of the body,



which are often on the same acupuncture meridian that the original focus is on, if that makes some sort of weird sense.

**Will:** It does. Absolutely.

**Dr. Gammal:** Dr. Reinhold Voll, who is the father of electro-acupuncture, very good for us, he matched the relationship of the teeth to the acupuncture meridian. And if you look at what are called the EAV charts -- electro-acupuncture after Voll -- the charts that associate the teeth with different acupuncture meridians. So, very often we see associations along those lines. For example, the front teeth, the incisors, are going to be on the bladder meridian. And that will affect reproductive systems, knees, kidneys in both men and women.

The upper molars, for example, and the lower premolars, are on the stomach meridian. Now, the stomach meridian starts on the face and passes through the breast and goes right down to the toes. I have personally lost count of the number of women after having an upper molar root therapy removed that have come back to me a week later and told me that the lumps in their breasts have disappeared within a week of taking out the dead tooth, which is sitting on the stomach meridian with no other treatment. And those lumps had been there for years. And that includes patients who have been doctors and medical doctors.

**Will:** Let's touch on that one again because I've heard this and it's humongous for me.

**Dr. Gammal:** I think it's important. Yes, that's the association that we see on the neural therapy side. So, even if we can get rid of all of the dead tissue, even if we could eliminate all of the bacteria, even if all of the materials that we used were

perfect for the body and biocompatible, which they're not, we've still got an issue of this neural interference. And that is something that dentistry refuses to acknowledge.

**Will:** Sure. Well, hopefully, in the future, we'll see the industry waking up and realizing that we can't treat the mouth separate from the rest of the body.

**Dr. Gammal:** I really hope so. I really hope so. To the point of stupidity that in Australia -- I think in America, but certainly in Australia -- the idea of neural therapy, neural interference is a nonsense idea. Acupuncture doesn't really exist out here. In Germany, these concepts have been taught to undergraduate students at medical school. [Laughs]

**Will:** So, I want to come back to...you said you personally lost count of the number of women who have had upper molar issues. Will you go into that story again?

**Dr. Gammal:** What I was talking about is the relationship of different teeth to different parts of the body as one of the ways that a dead tooth can affect the body. And a dead tooth, I'm calling a root canal tooth is a dead tooth, no matter which way you look at it. There's no such thing as a little bit dead. [Laughs] And we could make other jokes.

So, when we take out these root therapy teeth and there's a whole procedure for doing that, which I'd like to get to at some stage in our chat, what we're doing is removing that neural interference. So, that allows the body to switch back on

again. The interference isn't there. The body begins to heal itself. What I found most terrifying when I started doing this was how quickly the body can heal itself.

The particular story I was telling you was about breast lumps disappearing after upper molars and lower premolars have been removed that were dead tissue and that were acting as a neural interference. The first few times I heard it, I was so shocked because it was only a week later, and patients are coming back to have the stitches removed and telling me these stories. After doing it for 20 years, I've literally lost count of the number of women that have told me the same story.

I'd also like to just tell you and your listeners at this stage the first thirteen years of my career, I actually did everything that I was taught to do by my professors. I even put fluoride on people's teeth. I pumped amalgam in. And I have literally done well over 2,000 to 3,000 root therapies. And I used to think that I was able to do them well.

So, I'm not coming from a point of view of a complete cynic. I've actually been there, done it, poisoned myself, my family, and my fiends. And I'm trying to work my way around that one.

**Will:** [Laughs] Yeah, trying to undo your psychic damage, so to speak!

**Dr. Gammal:** Oh, absolutely! Absolutely. And physical damage, not only to myself but also to everyone I've treated. So, the last twenty-odd years has been doing the opposite. And what prompted me was a very fortunate meeting with somebody who prompted me to go and see Hal Huggins in Colorado. And in '91,

I went over to study with him. And he very kindly kicked me very hard. And I looked at all this stuff and I went, "Wow. I've been lied to for years."

And then, when I came back to Australia, I was one of the people who set up the Australian Society of Oral Medicine and Toxicology to try and fall in line with the International Academy over in America. And then we went from there. But, the story of how dead teeth can affect health is pretty horrifying.

**Will:** So, along that line, what other diseases have you seen resolve after removing a dead tooth?

**Dr. Gammal:** This research goes all the way back to Weston Price. And I am personally not a researcher. I'm pretty stupid like that. But I think I'm a fairly good messenger. The research goes back to Weston Price. And he found that there were a variety of illnesses that he classified as connective tissue illnesses, as arthritic rheumatic illnesses, and as neurological illnesses and all of those I've seen.

I think George Meinig actually put it most succinctly. He did an interview with Dr. Mercola some while ago. And I'll just try and pull it up. What he said what that root canal therapy -- and I'm not quoting directly -- is the story of millions of organisms invading a tooth and then producing the largest number of diseases ever attributed to a single cause.

Does that answer your question?

**Will:** Absolutely!

**Dr. Gammal:** What I've seen personally -- and again, I've seen a cause and effect stuff; we only get to see the result after the dead tooth has come out -- many cases of arthritic changes have disappeared and improved, gut diseases and lung diseases. We've had brain tumors disappear, pituitary tumors disappear. I've had a number of MS patients -- one very recently where the multiple sclerosis has disappeared completely, including the lesions on the MRI scans within 6 months of getting one dead tooth out.

And, really, there's a potential of anything and everything. That's also what makes the diagnosis and the argument so difficult. It's similar to the mercury problem where mercury can cause so many diseases and such a variety of different conditions that most neurologists won't even look at mercury as an option of a disease state because it's so hard to diagnose it. So, I tell all of my patients there are absolutely no promises in terms of their health improvements, but let's see what happens.

So, when you see pituitary tumors disappear, you see multiple sclerosis disappear, you see arthritic joints freeing up... You know? All the way through to a simple thing like [someone saying], "I've got this really bad pain in my knee." And that's fairly simple. It is a variety like that.

**Will:** So, why is that some people seem -- and I say the word *seem* in quotes -- why is it that some people seem fine with a root canal? I mean, obviously, none are okay. Is it an immunological factor or what?

**Dr. Gammal:** Weston Price, his research involved, I think, well over 1,600 patients where he went back three generations in their familial histories and worked out what various family members died from. And by doing that, he was able to separate people into three broad groups. One group, who were not susceptible to infections, what we would now call have a very strong immune system. The other group were people who were susceptible to all sorts of infections, again, what we would say very low immune function. And the third group are in the middle that may start off as being very strong. But after enough insults, will become vulnerable.

In Australia, we have Anzac Day marches. And the Anzacs are from the first World War. And just recently was, I think, the last of the Anzacs, a man in his nineties. Now, every year these people would march on this particular day in Australia as a commemoration to the lost colleagues. Many of these men had everything that dentistry can throw at them from partial dentures to amalgams and root canals and everything else. And they're the people at one end of the extreme, who can tolerate all of this abuse and insult in their mouths.

The other extreme is the 19-year-old girl who has one root canal therapy done, no other fillings at all, eats a perfect diet, is, in fact, a face model because she's so beautiful, and has a pituitary tumor within one year of having that root canal done. And we take out that one tooth, and she's not had any other medical intervention or treatment because she refused it. And within six months, the pituitary tumor is completely gone. They're the other extreme. Okay? So, some people are very vulnerable.

In between, you have the whole range. So, you've also got to understand that over a period of time, people may have one root canaled tooth. And as the amalgam breaks the tooth and cracks the tooth and causes pain, they have another root canal. And then, a year or two later, they might have another root canal. And, all of a sudden you've got people walking around with half a dozen or more root canal therapied teeth. That is an increase in the toxin load that is so dramatic that it's ridiculous.

Now, as I said in the very beginning of our discussion...Put it this way. Let's say you've got a really bad arthritic toe. Would you go to your dentist?

**Will:** Right. [Laughs]

**Dr. Gammal:** Of course, you wouldn't! If you were diagnosed with a tumor, would you go to a dentist and say, "Fix me"? If you had multiple sclerosis, you're just going to get sent home. How about another one like trigeminal neuralgia? Do you know what trigeminal neuralgia is?

**Will:** No.

**Dr. Gammal:** It's neuralgia of the trigeminal nerve. It causes such excruciating pain, that many people commit suicide because of the pain. Because dentistry and medicine tell us that there is no known cause and no treatment.

In Australia, many patients go to the pain clinics in the various hospitals and are sent home with Serapex because, obviously, it's all in their minds. The diagnosis is often made by oral surgeons who should know better. But, they're sent home

with Serapex. If that doesn't work, then it's a bit of brain surgery to cut the trigeminal ganglion and make the whole face and head numb.

**Will:** Oh, that makes sense. [Laughs]

**Dr. Gammal:** Well, it does make sense, and it would be really good if it stopped the pain. But often that doesn't stop the pain either. No, seriously, this is really tragic. This is so tragic because so many people suffer.

**Will:** Yeah, no kidding.

**Dr. Gammal:** Now, the research goes back to 1920, has been repeated over and over. There's a man called Eugene Ratner who published in the sixties and early seventies that was able to demonstrate the association between dead teeth, cavitations in the jaw bone, root-treated teeth, and trigeminal neuralgia. Now, dentistry does not like to admit it. So, better to do brain surgery than take out a dead tooth. And that's what's happening.

So, when you ask me what sort of variety of diseases and why isn't it picked up by dentistry, well, these people don't go to the dentist, they go to the doctor. The doctor doesn't know the stuff that we're talking about. And I don't mean to sound condescending. It's just the way it is. It's not taught.

**Will:** So, I know that anyone listening to this now with a root canal or having been told that they need a root canal is freaking out.

**Dr. Gammal:** Probably! I hope that's the case.



**Will:** Yeah. Let's take it to solutions. And I have another extra question here, too. First of all, what do you say to a person who has one or more root canals in their mouth today?

**Dr. Gammal:** I run a very weird sort of dental practice. [Laughs] It's not your standard dental practice. A lot of the patients that come to see me already are a little bit trained or a little bit educated in what I'm about to tell them anyway. The things that I tell my patients are the things that I have written on my website, which might be good for other people to know. But there's a lot of information there about root canal and how to fix health and what you can do about it.

Like I said, again, in the very beginning, unfortunately, I wish we had a treatment that could work to supposedly save teeth. Dentistry calls saving teeth keeping a dead tooth in the body relatively painlessly so that we can put \$2,000 worth of crown and bridge work on top of it. That's what dentistry calls saving a tooth. I call saving a tooth keeping it alive.

I don't see a lot of difference between a dead body and a dead tooth. They're still dead tissue. So, if we're going to save a body, we have to keep it alive. If we're going to save a tooth, we have to keep it alive. Anything else is dead.

Unfortunately, I don't have any great solution for patients, which would be lovely if I did, but I don't. And the only solution that I can offer is to remove the dead tooth the same way that we would remove a gangrenous big toe.

**Will:** So that leads me to the question that I got out of our discussion is you mentioned that there's a technique to properly remove a root canaled tooth. Can you touch on that?

**Dr. Gammal:** Thank you very much. Yeah, I forgot about that. Again, dentistry teaches that the best way of taking a tooth out is to grab it with a pair of forceps -- most people would call that pliers, but, you know, we have special names -- forceps and give it a good enough shake and a wriggle and a lot of energy and eventually you pull the tooth out of the jaw because it's always such a traumatic business for both the dentist and the patient usually. You whack a bit of gauze over the socket and you get rid of the patient before it starts hurting or bleeding. And that's considered to be good dentistry.

When you have a dead tooth -- especially a root-treated tooth in particular -- the root itself becomes quite fragile and brittle. The bone around the root can become very dense. It's called condensing osteitis. In which case, when you start taking a tooth like that out, you run a very high risk of breaking the root. And then you begin digging around in the jawbone to get that root out. And what many dentists will do is pretend because their professor said it was okay, and they'll tell the patient, "Well, we got the tooth out but there's a bit of root there. And we'll leave it there. And it's okay."

**Will:** Oops!

**Dr. Gammal:** Oops! Oops, big time. The other thing I'd like to add to that whole picture is that if you have materials inserted into a tooth, those materials, the toxins, everything is coming out of the tooth all of the time. The first place that

that material will go to is a periodontal ligament around the tooth and the bone that is around the tooth.

If those medicaments contain things like formaldehyde, which is known and used as a mummifying material, then the bone around that root is not very healthy. So, if you just take the tooth out and leave the bone and the abscess as dentistry teaches, you've got a high risk of forming what is called a cavitation where the bone will heal over the top, but leave the infected abscess tissue deep in the bone which continues to grow because it's loaded with anaerobic bacteria. The bone dies, and we have what's called a cavitation in the jawbone. That is far from ideal healing.

So, the way we do it almost invariably is to approach an extraction like that surgically. I will separate the roots of the molar so that instead of trying to pull a tripod out of concrete, we're taking each root out separately, gently, individually. As you open up a socket like that, it gives you access to the end of the socket so that the abscessed tissue can be removed and curetted out. Then we often pick up a round surgical bur and take the bone back to healthy bone.

So, we remove about a millimeter of the surface of the bone in the socket, after which it is nice to irrigate, but also to irrigate with plain local anesthetic, ideally protane, to switch off any neural interference that may still remain in the bone. And that becomes a slightly different procedure to just pulling the tooth. Then you've got a much higher chance of good healing and actually dealing with the causes of the disease associated with them.

**Will:** Right, right. There's definitely a process to doing it from the more holistic perspective as far as taking into consideration neural interference.

**Dr. Gammal:** Yep. So, we're trying to address all of those issues. Do you know what a dry socket is? A dry socket is when you take a tooth out, you've got a hole in the bone. And the way it heals is that hole fills up with blood. The blood clots. Eventually the capillaries grow in from the side of the bone, lock the blood clot in place, and start releasing cells which are going to lay down collagen. And eventually that collagen gets transformed into bone. And that's a normal healing.

A dry socket is one where the blood clot either gets washed out or doesn't form properly. And extremely painful and infected bone. Now, that's always a possibility with any extraction. But from my experience, I reckon that my dry socket rate went from about one in ten, which is according to pulling teeth out with forceps and getting rid of the patient, to about one in a hundred after doing it the way I've been describing. Now, that's a dramatic difference.

And, really, dentists complain about how long it takes to do what I'm suggesting. Well, it takes a lot longer when the patient is coming back and you've got a practice full of patients that are coming in every day with dry sockets that are need dressing.

**Will:** Yeah, really, huh?

**Dr. Gammal:** Yeah.

**Will:** So, if a person has multiple root canaled teeth, how would you suggest a person discern, is it best to remove one before another? Or, how do you navigate that?

**Dr. Gammal:** That's a really, really good question. I can't give you a scientific answer on it.

**Will:** Fair enough.

**Dr. Gammal:** [Laughs] I can't! It's very hard. It's a really hard question. It brings in a whole lot of other concepts, as well. And that starts at the very beginning. The majority of dental practices in this country have a medical history questionnaire which asks any new patient about six questions like what medications they're on, are they pregnant, what are you allergic to, things like that.

My medical history questionnaire has about 120 questions. And that starts giving me an indication of where to start looking. The patients often tell me where to go because their health has changed at different times. They've got a chronological relationship that comes into the decision-making.

What the teeth have been restored with is a major factor in the decision-making. And in some cases, we take the restorations off first as part of the amalgam removal procedure and then do the root therapies after that.

Hal Huggins, Dr. Huggins, worked out that unless the amalgams are removed in the correct electrical order, you can create disease states and put people in

hospitals with heart attacks at night when you take the fillings out in the wrong order.

So, if I've got a mouthful of amalgams, root therapy teeth, crowns over the top, gold, bridgework, implants...there's an electrical milieu in that person's body which will be affecting their central nervous system. And I need to navigate that as well as which tooth to come out first. So, I can't give you a very sort of clean answer on that. It is quite complex sometimes.

**Will:** Yeah, in other words, you get with a qualified person and get their help to navigate that terrain.

**Dr. Gammal:** Absolutely. And I'll be quite rude here, but it's not the map that the majority of dentists have ever heard of. I had to go there. And I'd like to make something else very clear if I may. I'm certainly not picking on dentists. I am very much and very definitely picking on the deans of dentistry and the professors who head the various departments of dentistry who continue to teach this nonsense with complete disregard for the published literature. Those people I am picking on.

The rest of us are like myself. I've been doing root therapies, putting amalgam in, putting fluoride on people's teeth because I was trained to do that. There's no longer a mandate for these people to continue to teach the nonsense that is being taught to dental students today, which is exactly the same nonsense that I was taught, by the way, in the 1970s. I graduated in 1974. So, I've been doing this for a little while now.

**Will:** Yeah, really. You've been around the block. So, what options exist to fill the space left from extracting the root canal tooth?

**Dr. Gammal:** That's a good question. Nobody wants to walk around "gappy." One of the options that I always give patients is to walk around gappy. I guess that's an option. Lose a tooth? Okay, walk around gappy. The big argument to that is that when you do take a tooth out, the other teeth will move and you may create a biomechanical problem in the temporomandibular joint, which will then be relating to the cervical and lumbar vertebrae, and cause other physiological disease states, pains, aches. I don't have an argument against that. In fact, I agree with that completely.

My argument would be to say, "What's easier to fix? The temporomandibular joint problem where I can fix that by putting a little partial denture in the mouth and recorrecting the bite, or the cancer that's associated with the root therapy tooth?"

**Will:** Yeah, really.

**Dr. Gammal:** I know which one's easier to fix. So, in answer to your question, there's a variety of ways. And that, again, depends on which tooth is coming out, which teeth are missing, what's left that you can actually hang on to. So, anything from a removable partial denture to a fixed bridge where you have a crown on the teeth either side of the space and a false tooth and the whole thing is cemented in in one go.

Nowadays, we have wonderful materials like zirconia porcelain so that we don't have to use metal in the mouth. I have not made a metal crown in over 20 years,

or, no, 15 years, I think. It's all been zirconia porcelain. You can make bridges. You can do hip replacements. You can make implants with zirconia porcelain. It's strong enough to do that.

I am not sure of the situation in America, but certainly in Australia, the next way of filling teeth, which we are all being pushed toward, is using implants. In Australia, almost 99% of implants are made from titanium. In Europe, zirconia is being used more as an implant material, which gets rid of one of the major problems of implants. That problem is a strain of titanium ions throughout the body. Titanium is not a inert, especially if you're going to put a gold crown and different metals on top of the titanium inside the mouth which has got saliva, and, therefore, the electrolytes, you're creating massive electrical currents. And you are actively promoting the release of titanium ions, which spread through the body.

Now, if you look at the work of professor Vera Stejskal, who is the professor of immunology in Sweden who designed and developed what's called the melisa test, then you find that a vast majority of autoimmune diseases are caused by heavy metals where one ion of the metal may attach to a protein in your body. And, this is very simplistic, of course, so please, understand, I'm making it very, very simple. An ion of metal attaches to a protein in your body and the immune system looks at that and says, "Hey! That's not me!" and we'll just gobble that up and get rid of it.

Well, that is the beginning of a cascade of autoimmune diseases. I disagree with the idea of just working titanium implants in throughout the mouth, pretending that mechanics is the only thing that we have to consider. And if people would go to check that out, the place to go is [www.Melisa.org](http://www.Melisa.org). And all of the published



literature's there plus a lot of stuff for the lay person to be able to understand easily. I have great respect for what she's done over there.

And, again, these are patients that I see. If I had a gun to my head and somebody said, "Make a choice. Root canal or implant?" Yes, I would take an implant. But I don't think it's a very valid way of filling a gap when you can do things that are completely noninvasive.

**Will:** So, let's talk about options the average dentist who still believes in root canals are safe may not be aware of yet, what alternative treatments to conventional root canals are available? And, in particular, you mentioned earlier on in the talk that you'd much prefer to keep live tissue living and healthy. So what can the average person do for that?

**Dr. Gammal:** [Laughs] Ah, that takes you to the work of a guy called Ralph Steinman who published his research in the late sixties and early seventies, also, in many of the New York and California dental journals, a variety of dental journals. He looked at the flow of fluid through a tooth. And, again, I've got to say thank you to Hal Huggins for introducing me to this man's work.

And what he found was that so long as there was a good fluid pressure inside the tooth pushing out, you don't get decay. That fluid pressure is under the control of what's called the autonomic nervous system, which is the part of our nervous system that regulates all of the unconscious parts of our existence, including blood pressure. And when that fluid flow either is reduced in pressure or reversed, then you will get decay, no matter how well you're brushing your teeth.

The way of maintaining good health and good dental health is then down to very good oral hygiene -- as in, clean your teeth properly -- eat really good food, which is clean and organic and not contaminated with preservatives and fungicides and other things, and live as low a stress life as possible. Sounds very simplistic, but, actually, those were the conclusions of Ralph Steinman back in 1970 because stress will affect the autonomic nervous system which will affect the fluid flow in the tooth. And, then, no matter how well you clean your teeth, you're going to get decay.

So, in answer to your question, you've got to come outside of the mouth. And that sort of brings me to another concept that dentists should get out of the mouth and look at the rest of the body to see the effects that we're having on people's health. And every other health practitioner needs to get into the mouth and see what dentistry is actually doing.

**Will:** Yeah, there's the dream panel of experts where you have yourself or somebody like Dr. Huggins sitting there to represent the mouth. And then you have your neurologist and your cardiologist and right on down the line. And you all discuss a person.

**Dr. Gammal:** Wouldn't that be wonderful?! I had the opportunity to chat to a neurologist once. I suggested after a while that he send the Australian Dental Association a bunch of flowers every week because they're keeping him in business.

**Will:** [Laughs] Yeah, really!

**Dr. Gammal:** Sure! Well, half of his business is associated with mercury poisoning. There'd be a percentage of it that's associated with dead teeth, as well.

And when you have these dental associations promoting a nonsense that mercury and amalgam is safe and that root therapy is a good thing to do, then we've got a really major issue. And people's health does get affected.

**Will:** So, do you have any closing thoughts to offer our listeners at this point?

**Dr. Gammal:** Yes. Take the time to explore the treatment options that are being offered. And just because the person has a white coat and drives a very expensive car doesn't mean they're telling you the best thing for your health. So, take the time.

We're in such a wonderful time now where we've got so much information at our fingertips through the internet. And it is very hard, of course, to discern whether what you're reading on the net might be the truth or not. But, at least we have an opportunity now that each one of us can explore the information that is available.

On my website, on the very front page of it, it says, "Don't believe a word I'm saying. I'm just a dentist. But here's the link to Medline." Everything I've written is referenced. Go check it out!

**Will:** Where can folks find more information about you and your work, Dr. Gammal?

**Dr. Gammal:** On my website. Very easy, RobertGammal.com.

**Will:** Right on. We'll have it posted on the interview here so that people can find it easily.

**Dr. Gammal:** Well, that's very kind of you. Thank you.

**Will:** Wow. Thank you so much, sir, for sharing so much of your knowledge with us today. I really appreciate it!

**Dr. Gammal:** Thank you so much for the opportunity to do it! I really enjoyed it, too!

**Will:** Thank you.