

THE ROOTS OF DISEASE, CONNECTING DENTISTRY AND MEDICINE

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February 24, 2020

How is it that medical doctors don't know much about dentistry, and dentists don't know much about medicine? Neither is taught much about the other in medical or dental school. Yet many are the repercussions from one not knowing the effect one's actions are on the other. From the standpoint of medicine, many health conditions affect the teeth, such as osteoporosis, Rx drugs that dry the mouth cause tooth decay, and many other drugs can have adverse effect on the teeth and jaw bones. The authors of this book mainly discuss how teeth, gums, and dental work affect the health of the body. They mainly cover periodontal disease, cavitations (osteonecrosis of the jawbone), and root canal procedures.

Root canal procedures are done to "save the tooth." When a tooth is so badly decayed and/or infected to the extent that the tooth is essentially dead, the blood circulation gone, the only other option would be to pull the tooth. Dentists are taught to do anything to save the tooth, as if pulling the tooth would be only a last resort, as an example of "failure" of dentistry. The authors disagree, because the effect on the rest of the body has to be considered. No matter how much dentists try to sterilize the tooth, bacteria still persist in the tiny spaces and tubules that are untouched by the material that is used to fill the carcass of a tooth, after all the nerves, blood vessels, and other tissue have been removed, leaving the dentin with some microscopic channels still filled with bacteria. There never has been, and there likely will never be, a substance that can fill and sterilize these microscopic channels. If they would be sterilized, what could continue to keep them sterile in the environment of the mouth?

Dentists say that many areas of the body have bacteria, and the body's immune system takes care of them, but the circulatory system has to have access to the area for the immune system to handle the situation. The dead dentin has no circulation. What happens to a dead piece of bone or other tissue elsewhere in the body? It can ultimately be slowly removed by the body's defenses. But what if bacteria are in the dead tissue? If circulation cannot reach it, it becomes gangrenous, and can cause dangerous infection that threatens "life and limb." It has to be surgically removed to save the person's life. Though the tooth is small in comparison to a gangrenous toe or foot, billions of bacteria can live in that area indefinitely. They know how to survive without the circulatory system bringing them food. We have many varieties of bacteria in the mouth that we can live with, but when deprived of oxygen, as in the microtubules of the tooth, they become enormously toxic.

These bacteria can access the circulation to travel throughout the body and can seed infection elsewhere, but what about those that don't travel and just sit there and put out toxins? Toxic shock syndrome came from staph bacteria in tampons left in the vagina too long. In spite of no blood vessels in the tampon, the staph bacteria in that enclosed space put out very potent toxins that got absorbed through the vaginal mucosa, into the circulation, causing high fever, drop in blood pressure, "shock," and kidney failure, and this situation became life-threatening. The staph bacteria could not be found in the blood, so antibiotics were useless. Treatment was supportive, *with removal of the foreign object*. The bacteria in root canal teeth are more likely Streptococci instead of Staphylococci, but Strep, when deprived of oxygen, can similarly produce toxins that can travel to other sites. Another example of bacteria producing systemic toxins without migrating, is tetanus, caused by *Clostridium tetani*, bacteria growing in an infected wound, producing toxins that practically paralyze the whole body and can cause death from hyperthermia.

The authors summarize the parallels between toxic shock tampons and root canal teeth.

1. Both are loaded with bacteria.
2. Both have little or no oxygen present at their cores.
3. Both present a warm, moist, dark, bacteria-friendly environment.
4. Both offer safe haven for bacteria, free from access by the immune system and antibiotics.
5. Both can cause disease in other parts of the body.

The authors review the work of Dr. Weston Price, D.D.S., M.S., F.A.C.D. He and Drs. W.D. Miller, William Hunter, and Edward Rosenow proposed the idea of focal infection. That is, bacteria from one part of the body travel to a particular site chosen for its micro-environment that would be favorable to their growth. The scientific literature has abundant documentation of infection from the mouth seeding various parts of the body, causing severe infections.

Dr. Price found that even after extracted, root canal teeth were very difficult to disinfect, even with harsh chemicals and high heat, (which could not be used in the mouth). He found that bacteria and toxins from root canal teeth can escape and cause systemic diseases. He noted recovery from a wide range of conditions, including rheumatoid arthritis and psychiatric disorders, in patients from whom root canal teeth were extracted. In several experiments, he surgically implanted the extracted teeth under the skin of rabbits. He found that if the rabbits did not die first from the overwhelming toxicity of the tooth, they would often develop the same diseases that had plagued the humans, from which the teeth had come. He repeated these same experiments over and over again, obtaining the same results. This demonstrated the

concept of elective localization, that some bacteria tend to migrate to specific locations, and others to different locations. The heart and circulatory systems were the most commonly affected.

Dr. Price's experimental technique was impeccable, but modern root canal specialists say his work was invalid and outdated. Well, no one to my knowledge has repeated these experiments to prove that those events Dr. Price noted don't occur. Don't knock something from the past, just because it is old, unless you can disprove it. Dr. George E. Meinig, D.D.S., F.A.C.D., wrote Root Canal Coverup, describing in extensive and graphic detail the well documented numerous experiments done by Dr. Weston Price, with the same consistent results. The ADA has not come up with any scientific research that disproves Dr. Price's findings.

Granted, the root canals of today are cleaner than those decades ago, but they are never sterile, and the presence of some bacteria always means they can multiply and cause problems. Dentists previously claimed that the tooth was sterile, but after much protestations to the contrary, they finally admitted that the tooth could not be completely sterilized, but that the amount of bacteria was insignificant. Well, any amount of bacteria is significant. Don't be too cavalier to dismiss them. Remember tetanus. Dr. Price found that when he injected only the toxins from the bacteria into the rabbits, they died sooner, because if he had introduced bacteria also, the rabbits immune system would have had a chance to get prepared first. When he implanted non-infected teeth, no infection occurred, and the animals stayed healthy.

If the American Dental Association says root canals are safe, remember what the ADA said about mercury amalgams? Statements such as, that once mercury is combined with other metals, it forms a stable compound and is inert, have obviously been refuted by sound scientific evidence. Amalgam is not an alloy, only a mixture. High levels of mercury in people's saliva from vapors released by the fillings are at higher concentration than what the EPA allows in lakes and rivers. They enter the body as the second most toxic element on earth, after the radioactive ones. The EPA reported that the amount of mercury from dental amalgams exceeded all other sources including water and food (including seafood). This was corroborated by the WHO, that concluded that there is no safe level of mercury exposure. Left over scrap amalgam must be packed in an airtight container and disposed of as toxic waste. Mercury amalgam has never been approved by the FDA. Any material implanted in the body for more than 30 days is required to undergo extensive safety testing. The FDA exempted amalgam because it is a material mixed and provided by dentists. That means that it is not in the purvey of the FDA? The teeth are not part of the body???

So the same situation applies when the ADA says root canals are safe. Dentists are trained to do amalgams and root canals, and it is not likely that they will be curious

about any scientific research that contradicts the way they have always been trained. The ADA makes it difficult for dentists who question the dogma. Dentists could lose their licenses to practice if they contradict the ADA's edicts.

Dr. Kulacz studied the evidence with the help of the International Academy of Oral Medicine and Toxicology (IAOMT), and became angry at how he had been previously misled by dental education and regulation. He became committed to making the public aware of safety issues in dentistry.

The ADA gives accreditation to dental schools and therefore dictates the curriculum. Students are taught that the main overarching goal in any situation is to save the tooth. The ADA puts obstacles in the way of conscientious dentists who put ethics and the health and welfare of patient first. A dentist who pulls an asymptomatic root canal tooth can be reported for "ethical misconduct." Dental students are taught to "sterilize" the root canal tooth, and aerobic cultures show no growth, but the bacteria in the tooth are anaerobic.

The authors emphasize, **THERE IS NO WAY TO STERILIZE AN INFECTED TOOTH BY PERFORMING A ROOT CANAL PROCEDURE.** Further, they state that the standard sealing materials can never completely prevent the migration and leakage of bacteria and their metabolic toxins to the remainder of the tooth and to the rest of the body. Every person's immune system is different, and there is no way to predict which disease or dysfunction of which system will likely to occur with any individual, in response to these leaking toxins and bacteria in the body.

It is important that dentists consider the systemic ramifications of any procedure, how it can affect biochemical, physiological, and immunological systems, and be prepared to modify treatments in the light of new research findings. Otherwise the dentist would be just a technician. The authors say the root canal procedure would just become a technical procedure if the dentist cannot answer the following 7 questions:

1. What is the goal of the procedure?
2. Can bacteria remain in ideally treated root canal teeth?
3. Can bacteria or bacterial toxins be released from ideally treated root canal teeth?
4. Can ideally treated root canal teeth cause or contribute to systemic disease?
5. Is there any medical contraindication to a root canal procedure?
6. Is there any clinically restorable tooth on which you would not perform a root canal? If so, what would be the basis for your decision?
7. What is the indication for an apicoectomy and what are you trying to achieve with this procedure?

Patients should ask these questions before considering the procedure.

Another important issue in dentistry affecting the body systemically is the cavitation, which is a pocket of necrotic, infected tissue in the socket of an old extraction, infecting the jawbone. This common source of gangrene also can affect the body systemically, with toxins and bacteria seeding to other parts of the body. The cavitation may or may not show up on X-Ray. There may be no pain in the area. It is very likely to occur at the site of a wisdom tooth extraction. The larger the tooth, the higher chances of cavitation, but it can occur after any extraction. My dentist recommends that for every extraction, the peridontal ligament that holds the tooth in place should be ground out with a burr or curretted. Otherwise, the surrounding tissue senses that the tooth is still there, and does not fill in the hole, leaving room for infection. Often the cavitation is not diagnosed without drilling into the gum in a suspicious area. When discovered, the area needs to be surgically debrided, including the necrotic bone.

Dental implants also need cautions regarding compatible materials. Titanium is fairly compatible with the body and fairly non-reactive, but, being brittle, needs to have other metals alloyed with it, which can leach out over time. They need to be compatible with the body's immune system. There are blood tests for compatibility for various substances. Since this book was written, zirconium implants are now being used, which should be even more compatible and non-reactive. Placing the implant into the bone means access of mouth bacteria under the gum to the bone, not exactly the natural type of seal that teeth have. This leaves possibilities for infection going into the bone. If the implant needs to be removed, that leaves a hole in the jawbone, and weakens the bone, with susceptibility for fracture in case of trauma.

Periodontal disease, inflammation and infection of the gums, with loosening of the gums from the teeth and formation of pockets where debris and bacteria can accumulate, also can have adverse systemic effects on the body, with the immune system reacting and causing systemic inflammatory conditions. It has been very well documented the connection between mouth infections and heart disease. To treat this requires regular home care and dental hygiene, with flossing, brushing, water jets, etc., antibacterial mouthwash, and sometimes systemic antibiotics and surgical debridement. The American Heart Association provides guidelines for when to use antibiotic prophylaxis for which dental procedures for which cardiac conditions.

The book has a section for frequently asked questions, a section of case studies and testimonials, and appendices with scientific articles and photographs. Dr. Levy has written a more recent book, in 2017, [The Hidden Epidemic](#), about silent oral infections connected to heart attacks and breast cancer. This book and what it reveals need to be heeded by the medical and dental professions as a caveat to "first, do no harm." A quote in the introduction by Carl Sandburg is applicable: "I took so much medicine I was sick a long time after I got well."