

**Root Canal Treatment Safety - Movie "Root Cause"**

Recently, a movie titled "Root Cause" featured on Netflix created fear among some patients. This movie made in Australia has a story of a young man who developed symptoms of chronic fatigue after a root canal treatment on upper front tooth. After having exhausted all the medical treatment options, his condition improved after extraction of the root canal treated tooth. His health improved further after he had treated 'cavitation' in the jaw and received many 'biologic' procedures - nutrition, gentle magnetic, etc. In between the plot, many 'experts' provided the following claims to the viewers:

- 98% of the women with breast cancer had root canal treatment on the same side.
- 70-90% of all medical problems are originated from the mouth.
- 96% of the cancer patients had infected tooth in the same power circuit as the primary cancer was.
- The biggest toxic influence in the body in chronically ill person is root canal treated tooth.
- Root canal treated teeth are the #1 direct cause of heart attack. Root canal treated teeth are dead tissue, and, therefore, it should be removed since body cannot tolerate the dead tissue.
- Root canal treatment cannot clean out the bacteria and toxins in the dentinal tubules. Teeth with root canal treatment is a haven and waste dump for dead tissue, bacteria, and toxins.
- Endodontically restored teeth are like taxidermies.
- Conventional dentistry believes that you should save a tooth at all costs, and if the patient dies, well, that was the price of saving the tooth. They don't really come with the concept that you should take things that are dead out of the body.

The "experts" also give their anecdotal case reports:

- 19 year old female with kidney and bladder infection cured after extraction of the root canal treated upper central incisor.
- 40 year old female with back problem eliminated back pain after clean out the bone grafted implant site.
- A women with Hashimoto's disease caused by cytomegalovirus from a third molar extraction site in the jawbone and nickel ions from an orthodontic retaining wire. Once those two substances were removed, the Hashimoto's totally disappeared.

The "experts" explain dental connection to chronic fatigue, lupus, diabetes, prostate cancer, heart diseases, other systemic illness. It is due to the impeded energy flow by root canal treated teeth and cavitation in the jaw bone. Therefore, the "experts" recommend that patient should remove root canal treated teeth and replace it with Zirconia bonded bridge, Zirconia implant supported crown, or a denture.

**Root Canal Treatment Safety - Evidence in Clinical Practice**

As health professional caring about the well being of the patients, we are deeply concerned about the misinformation on this movie on the internet. This recurring theme of "focal infection" turned up again in 2019 through the internet. Based on the debunked research done by Dr. Weston Price years ago, the movie features "experts" who make dubious claims about endodontic treatment and promote 'biologic (holistic)' dentistry. I would like to see the published data of their claims before making any comments. As endodontists specialized in saving teeth, we offer our own clinical experience based on evidence:

- The complex microbial population in the mouth presents enormous health challenges. When the health of the pulp is irreversibly compromised, our patients are facing one of the two options; Extraction or Root canal treatment (RCT). As long as the tooth is restorable and has good periodontal support, saving the tooth with RCT should be the first choice.
- Root canal treated teeth are 'pulpless' but not dead. Since the pulp was removed, they can't feel hot or cold but are supported by the surrounding jaw bone through which blood circulation is provided. And periodontal ligament provide them with sense of touch and biting. They are constantly under watch by the immune system.
- Numerous prognosis studies have demonstrated that root canal treatment is successful as high as 92% which means the tooth is comfortably fully functioning with no abnormal clinical and radiographic signs.
- It is a practice of our office to provide free follow up evaluation usually 1 year after the completion of the root canal treatment. We can attest that our observation through these follow up visits have been positive in vast majority of the patients who are also satisfied with their treatment experience and the outcome of keeping the natural teeth.
- We are fully aware that we cannot sterilize the root canal space but capable of effectively disinfecting the canal system. We are confident that we can minimize the microbial burden to the host tissue through non-surgical endodontic procedures as demonstrated by bacterial culture and molecular analysis.
- Non-surgical retreatment can be performed if the initial RCT fails due to the presence of microorganism in the root canal space e.g. missed canal, coronal leakage, etc.
- Endodontic microsurgery is an excellent treatment option to eliminate the non-healing periapical pathology and the microorganisms outside the root canal space with 90% successful outcome.
- 86% of the root canal treatment failure is attributed to lack of coronal restoration. Strong collaboration with referring doctors who provide coronal restoration and ongoing maintenance care, our patients receive maximum measures to ensure the longevity of the root canal treated teeth.
- We help the patients to make the optimal treatment decision through consultation and informed consent process which includes the recommendations made by the referring doctors.