

ROOT CANALS: SAVIOR OR SUICIDE?

“You need a root canal!!”

These are probably some of the most threatening words a person can hear short of being sentenced to the electric chair. We all have preconceived ideas about root canals, but are they really based on fact? This booklet will provide some of the basic facts so you can have a better understanding of what a root canal is.

Why do you need this information? When it comes to making the final decision, the choice is yours whether or not you get the root canal. It is your body. You have the right to make a decision, but do you have the information necessary to make an informed, educated choice? The purpose of this booklet is to provide you with enough information to help you either make a decision or encourage you to seek more information.

SAVIOR QUALITIES

There are some “savior qualities” of root canals. Root canals from the practical standpoint serve as saviors, or, in other words, are beneficial in some very specific areas. Although not all root canals are done for reasons of pain, this is generally the primary reason. A close second is if you have a tooth that has broken off into or near the pulp chamber (anatomy lesson later), the tooth can be salvaged and restored with a new crown that is quite esthetic as well as functional. Another example is if a tooth is broken off at the gum line, a nickel (stainless steel) post can be screwed into the pulp chamber on top of the root canal. Then, a new crown can be fabricated on top of the post, and you are as good as new -- functionally and esthetically.

A root canal can also be used to restore a tooth that is an abutment for a bridge. In other words, bridges have to have something to attach to on both sides of the space left by an extracted tooth. A root canal tooth can be used this way and may mean the difference between having a trouble-free, permanent bridge cemented onto your teeth, or a more cumbersome, removable partial denture.

A root canal may also be recommended if you have only 2 or 3 remaining teeth, upstairs or down, and need to anchor dentures. A root canal can be done on

one of the remaining teeth so a “knob” can be placed on the tooth that will fit into a slot in a denture. Dentures are notorious for being unstable. An anchor for the root denture, no matter how little actual holding power it has, provides far more stability and comfort for the denture wearer. There are many ads on TV for denture adhesives because stability is a problem. Being able to hang onto a stump of a canal tooth does give additional stability. These are some of the most popular benefits, or savior qualities of root canals.

SUICIDE QUALITIES

There is a darker side to root canals: The “suicide qualities”. This probably sounds a little severe to say about something that has all the wonderful qualities just mentioned. But, there is a price to pay for the esthetic and mechanical advantages of a root canal. This is not generally mentioned by dentists for two reasons. First, dentists are not taught the darker side of root canals in school. And, those who do know about root canals are threatened with expulsion from their society and license revocation. Why? Liability.

HISTORY

Let’s go back, for a moment, and see how the controversy started.

Back in the early 1900's, Mayo’s Clinic noticed that patients with root canals had far more severe diseases than those without root canals. A mammoth amount of research was conducted concerning the relationship between root canals and medical diseases. What they found were toxic chemicals surrounding root canal teeth!! This poison from the root canal teeth could be injected into animals and produce the same diseases that the human had who had donated the tooth.

Director of the Dental Association’s Research Center, Dr. Weston Price, picked up the challenge to dentistry and for 35 years directed research in the area of root canals. In 1923, Price wrote two massive textbooks on the findings of the Research Center. Researchers today say that it would be very hard to do research as well as Price did it. Unfortunately, copies are hard to find today. Dental schools find this information threatening, therefore, dental students are not allowed access to them in their libraries.

Again, the liability issue wins out over public safety. So, why did Price and a growing number of today’s dentists worldwide consider root canals hazardous to your health? I mean, really hazardous? To the point of giving you these incurable diseases? Doctors at Mayo’s, as well as Price himself, treated many thousands of patients whose diseases, they believed, were caused by their root

canals. The conclusion, following much research, was unanimous. They all found that there were many sound, scientific reasons to avoid placing root canals in humans.

A classic technique employed at the National Dental Association Research Center was to take a small portion of an extracted tooth removed from a sick patient, make an incision in the skin of a rabbit's belly, and insert the fragment into the rabbit. In less than two weeks, the rabbit would usually die from the same disease that the human had. Literally thousands of experiments of this nature were performed at the Dental Association facility over a period of more than 20 years. Many publications resulted and Dr. Price gave hundreds of lectures to medical and dental audiences about the findings of the dental association.

Price personally was given the highest awards for his research that had ever been given to a dentist. Yet today, it is as if he never existed. His work is referred to as ancient, and totally dismissed or ridiculed by dental leaders of today.

POLITICS

Basically, findings of both Mayo's and the National Dental Association Research Center agreed, but the political atmosphere in dentistry was not willing to take responsibility for this very significant finding. What the research concluded was that root canals could cause or contribute to many of the "incurable" diseases. This information has been glossed over by dentistry. You, as the (prospective) recipient of a root canal, should have access to this information. Placement of a root canal could have serious, adverse effects on your health.

"INCURABLE DISEASES"

Root canals have been connected with heart disease, cancer, multiple sclerosis, Lou Gehrig's disease, seizures and other neurological disturbances, poor memory recall and digestive problems. The list goes on to include emotional conditions including unexplained anger, irritability and especially depression. Price's book lists over 100 other diseases that actually were resolved (turned around) after root canal removal! Why does this happen? Toxic chemicals produced by dead tissue are generally harmful to human health. Root canal teeth are surrounded by (and contain) dead tissue. Some of the world's most toxic chemicals are produced within root canal teeth. It's easy to speculate about the relationship between disease and root canals.

Presumably for reasons of liability, the American Dental Association has denied the findings of Dr. Price, and probably more so today than in the 1920's. Dr. Price found that many of what are still considered incurable or non-responsive diseases underwent reversal when root canal or dead teeth were removed. Heart disease attracted Price's attention because it was growing in exponential numbers. He also had a personal experience with placing a root canal in a family member who then had a heart attack. A growing number of dentists in many countries are finding that they too can reverse what were thought to be incurable diseases by the proper removal of root canal teeth.

BACK TO BASICS

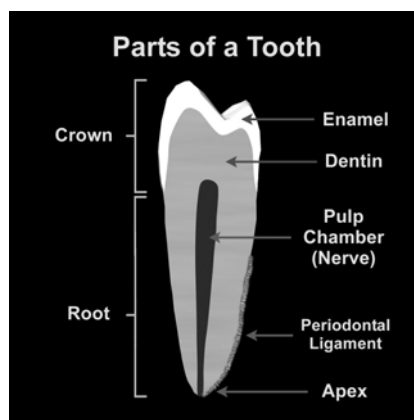
What is a root canal all about, anyhow? What are the procedures?

Root canals are very popular with dentists today. The goal of the American Dental Association was that U.S. dentists would be doing 30 million root canals per year by the year 2000. That goal was achieved in 1999.

Root canals can be done by the general dentist or a specialist called an endodontist. There are not enough specialists to do 30 million root canals per year, so the general dentist still does the majority of them. Usually general dentists treat the front teeth, and perhaps bicuspids, but refer the far more difficult molars to the specialist.

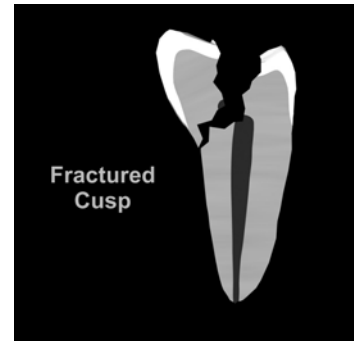
THE TOOTH

Let us first get oriented by looking at the structure of a tooth and its surrounding environment. The individual parts of the tooth are labeled in order to let you get familiar with the terms that will be used to describe the procedures during the next few pages.



WHY DID THE TOOTH GO BAD, ANYWAY?

There are several reasons why a tooth dies. If you have had a blow to the tooth, like someone's elbow, a hockey puck, or a fall, and it was severe enough to damage the nerve beyond its ability to repair, the tooth dies. Sometimes the pain and death scenario is within minutes, and sometimes it may take weeks for the symptoms to catch your attention.



That is usually the story for front teeth. Back teeth are more apt to die because of decay penetrating the pulp chamber, or the breaking of a tooth while chewing something hard - like ice.



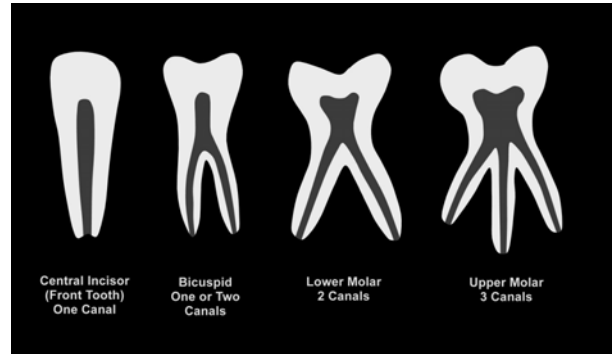
ONE SOLUTION

First, you want to save the tooth. However, the most frequent reason for needing a root canal (as mentioned earlier) is to eliminate pain. The kind of pain that wakes you up at 4 o'clock in the morning. You arrive at the dentist's office with an ice pack on your jaw, looking like you have been up all night. What is causing the pain? When the nerve within a tooth dies, the decaying tissues produce gas. These gasses cannot escape, so pressure builds up within the tooth and the surrounding bone. Pressure in bone creates pain. So, why the ice pack? Ice causes the gas to shrink a bit, so applying an ice pack will reduce some of the pain.

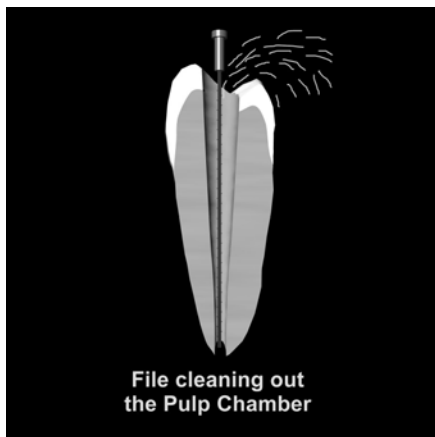
When the dentist sees you, the problem is diagnosed almost immediately. At this stage he doesn't even need an anesthetic (numbing medicine) to work on the tooth. The enamel and dentin have no feeling at this stage because the nerve, or at least the top portion of it, is dead. The nerve may be quite lively down deep within the tooth, but superficially, you will not feel the drill opening the chamber for the gas to escape. Relief is usually within seconds.

So, to restate, the dentist will cut a hole in the crown of the tooth in order to gain access into the nerve chamber, or as it is usually called, the pulp chamber,

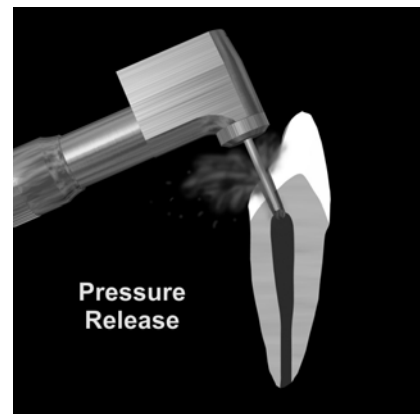
in order to release the gas. This can even be done through an existing gold crown. After the dentist has cut through about 1/8 of an inch into the tooth, the drill will open into the pulp chamber. At this time the dentist will use a very small file to remove the remaining contents of the pulp chamber.



When the dentist feels that the contents are adequately removed, he may flush the canal with caustic (corrosive) solutions to sterilize the canal. After



this, the canal is filled with one of several materials. The most common is a wax called gutta percha. Gutta percha is heated and then packed into the clean pulp chamber. The idea is to use just enough wax to completely seal the hole at the bottom, or apex of the tooth, but not so much that it will squirt out the end.



Antibiotics are generally given to the patient for several days afterward to combat infection around the tooth.

Sounds pretty straightforward, doesn't it? Occasionally it is. However, there are problems that can complicate the procedure.

MORE TOOTH EDUCATION

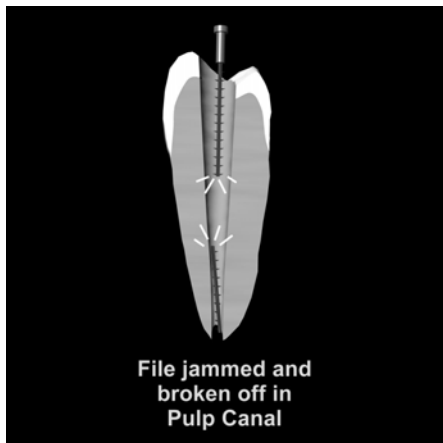
There is more to know in order to fully understand why problems can develop.

The dentin of a tooth is composed of tiny tubes called **dentin tubules**. If all the tubules in a front tooth were laid end to end, they would reach for over 3 miles. They are big enough in diameter to allow millions of bacteria to live in every inch of that entire three miles.

How many canals are there in a tooth? Front teeth usually have one canal. Bicuspids have one or two and molars can have two, three or four canals. Most

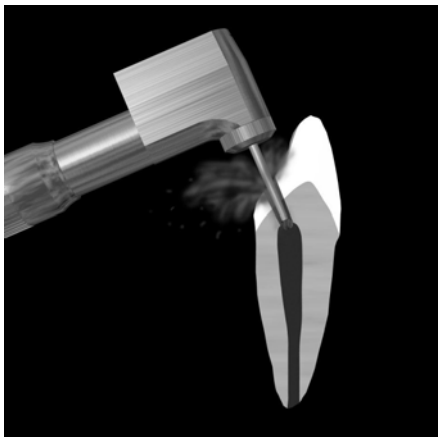
teeth have little branches off of the main canal called **accessory canals**. These canals contain pulp material, but cannot be seen on X-ray. These canals are impossible to clean and fill.

Sometimes one of the main canals is constricted and even the little tiny file cannot get all the way to the end of the canal. In canals like this it is possible for the file to bind and break off. There is no way a tooth with a broken file can be anything but grossly infected from that day on.



Neither antibiotics nor the white blood cells of your immune system can get up into the pulp chamber to destroy the bacteria. In dental school we were told to leave the broken file in place and inform the patient that it was there. We were to assure them that this constituted no problem to their health. As you will see, Dr. Price did not agree.

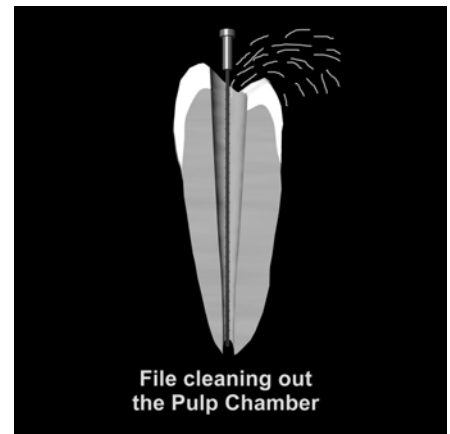
CLOSER EXAMINATION



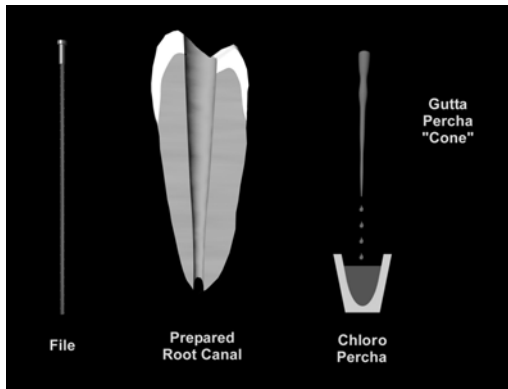
For a better understanding, let's examine the mechanical and biological procedures in performing a root canal step by step according to age-old concepts still in use today.

Preparation of a tooth and procedures for filling the root canal:

- first, the entrance hole is cut into the crown of the tooth.
- next a small file is scraped on the inside walls of the pulp chamber to mechanically remove fragments of dead or dying nerve tissue.



- sterilizing chemicals are squirted into the canal with a syringe, then flushed out. The canal is then dried with cones of sterile paper to absorb the moisture.

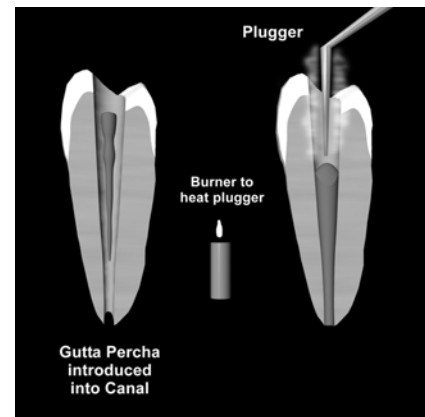


- a cone of warm wax called gutta percha is dipped into a solution called chloropercha (a mixture of chloroform and gutta percha). It is then placed into the prepared canal.

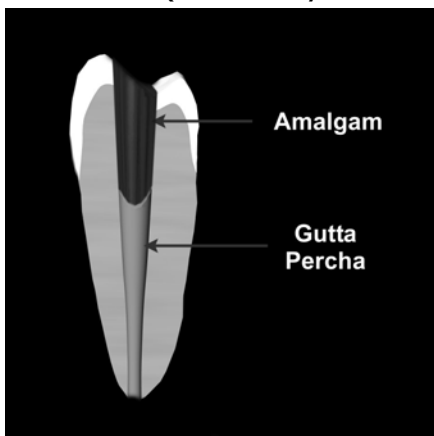
- an instrument called a "plugger" is heated over a flame, and inserted into the canal on top of the gutta percha. The dentist repeatedly pushes the plugger down onto the

gutta percha (called condensing it) in order to force the gutta percha to the bottom of the canal.

X-rays can be used to tell how close to the end of the canal the gutta percha might be, but it cannot disclose how close to the apex (see picture) it is. What??? How can that be? The nerve does not always exit where the X-ray says the end of the root is. That is to say, the end of the nerve and the end of the root are not always equal. Sometimes the root end is dimpled by 3 or 4 millimeters, and the tooth would be grossly overfilled (filled beyond the nerve ending) if filled to the X-ray-looking apex.



According to microscopic evaluations of extracted root canal teeth, there are far more problems with overfilled root canals than underfilled.

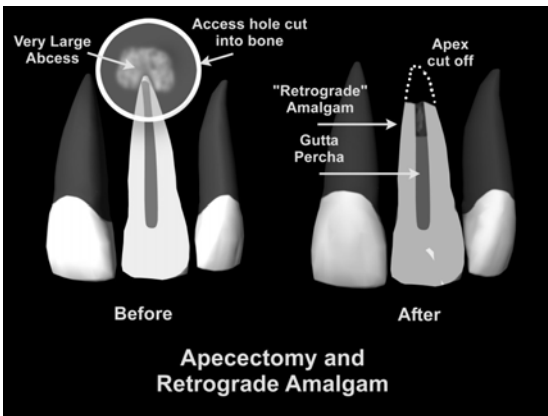


- after the dentist feels that the canal is filled, he will use a filling material (usually silver mercury amalgam) to fill the space left over and the original entrance hole.

Sometimes when there is a great deal of infection (as in a large abscess or granuloma) at the apex, the dentist will perform what is referred to as an "apicoectomy". In this procedure a hole is cut

into the jawbone in the area of the tip of the root, or the apex. He then cuts off 4 to 8 millimeters (quarter of an inch) of the tip of the root, finds the pulp chamber and fills it with a dental material. (Mercury amalgam has been the

material of choice until recently). This is called a *retrograde amalgam*. In other words, it is placed backwards, or in the root tip (tooth bottom) instead of on top of the tooth. The mercury is now in direct contact with tissue fluids and is not safe for the patient, no matter what the dental liability. Often these teeth can be easily identified due to the blackish purple "amalgam tattoo" that forms on the gums over the apical area a few months later.



DR. PRICE'S FINDINGS

Now let's look at those procedures in light of the findings of the dental research center involving Dr. Price and his team of PhD research scientists. Today's science confirms their findings, even though the dental societies deny this information.

Mechanical sterilization of the canal: Even the dental journals of today say that it is nearly impossible to mechanically remove all the debris in a canal. Tissue left behind will putrefy and become a center for tissue disintegration and subsequent infection.

Addressing the canal issue itself: Many roots are curved or constricted presenting mechanical obstacles to cleaning the curved portions and even getting a file to go around the corners. Again, we examine the accessory canals. These are branches off the main canal appearing most often in the lower 1/3 of the root. These are tiny canals containing pulp tissue. They branch off in all directions. The dental research team found as many as 75



accessory canals in a single tooth. There is no way accessory canals can be seen on X-ray, and no way to clean them out. In dead or dying teeth, these canals are full of rotting tissue and can create toxic chemicals just like the bacteria found in botulism.

From the bacteriological standpoint: Since the dentin of a tooth is composed of tiny tubes (dentin tubules), millions of bacteria reside in them, as mentioned earlier, and create a sterilization nightmare.

Are the sterilizing solutions able to kill **all** bacteria in the root, accessory canals, and dentin tubules? Dr. Price and his team of PhD bacteriologists at the research center studied this problem. They took 1000 freshly extracted teeth and cleaned the canals with the best mechanical techniques available even today. Realizing this is more easily done on an extracted tooth than on one in the mouth, we could anticipate them having done a more thorough job.

Next they inserted the most caustic bacteria killing solutions they could find into the canals (far stronger than one would dare use on a live human) and sealed the teeth for 48 hours. Keep in mind, standard procedures for sterilizing a tooth in the dental chair are only for a few minutes in the "one appointment" root canal.

The teeth were then reopened and tested on bacteriology culture plates for the presence of bacterial contamination. Out of the 1000 teeth tested, 990 of them tested positive for the presence of bacteria! From this, one can assume that it is nearly impossible to sterilize a tooth. Why? Bacteria living up in the dentin tubules cannot be reached by either mechanical or chemical means.

In further tests, some teeth were placed in a steam autoclave at temperatures above boiling. These teeth all tested sterile. This proves that the bacteria can be killed, but not by methods suitable for use in teeth in live humans.

HARMFUL BACTERIA

What is the problem with these bacteria anyway? To start with, they are generally "aerobic" bacteria that produce relatively mild chemical wastes. After being in a dead or dying tooth for a short while, the oxygen content drops. Instead of dying, these bacteria undergo a transformation (similar to a mutation) and turn into new bacteria that can live in a lower oxygen environment. These new bacteria are called **anaerobic bacteria**, denoting that they can survive in the absence of oxygen. Anaerobes produce waste products that are extremely toxic to humans. Botulism and tetanus are commonly known examples. Toxins from root canal bacteria are more poisonous than botulism and tetanus, so they are quite harmful at levels so minute that the toxins are almost undetectable. Such low concentrations require highly sophisticated equipment and methods to find the toxins, but they are available and can confirm the presence of these toxins.

LIVING ARRANGEMENTS

Where do the toxins reside? Some in the canal, some in the dentin tubules, some in the accessory canals, but mostly they are found in the **periodontal ligament**. This hammock-like ligament attaches the tooth to its surrounding bone. There is no way that mechanical or chemical methods of sterilization can reach either the dentin tubules or the distant periodontal ligament. Nor is there any way that a filling material can crawl through the tubules and sterilize the surrounding periodontal ligament, even though that is what is heavily advertised.

HOW HARMFUL?

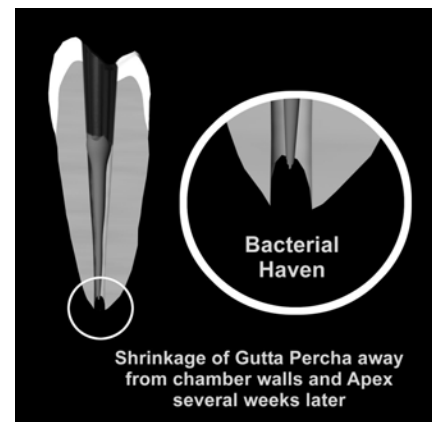
What do these toxins do? They can inactivate most **enzymes** in the body on contact. Why is this important? Because these enzymes are small proteins that govern all of our normal biological activities that keep us alive and healthy. Toxic chemicals created by bacteria can also attack and inactivate portions of our **immune system**. Our immune system is what fights off bacteria, virus and chemicals that endanger our health and well being.

Endocrine glands that produce hormones like estrogen, testosterone, insulin, adrenaline and thyroid stimulating or neutralizing hormones can be adversely effected. Many bothersome diseases of modern times can be traced to imbalances in hormone levels.

As already noted in this text, neurological and autoimmune diseases like multiple sclerosis, Lou Gehrig's disease, arthritis, cancer and others may be related to toxins from root canals. Certainly, reversal of these diseases is impossible as long as root canals are present.

FILL 'ER UP

Price found that there were additional problems involving the safety of root canals in the act of filling of the canals. Somehow the basic laws of physics would have to be changed in order for canals to really be filled the way they are touted to be.



Gutta percha is a wax that follows all the current rules of physics. When heated, wax will expand, thereby increasing its volume. When it returns to its original temperature, it will shrink back to its original volume. It is also a “compressive” material; it will act just like bread dough and return to its original shape after being punched down and released.

What is the result of this action? The gutta percha shrinks during cooling (over 20% of its volume), and rebounds from its compression (returns to its original shape). It will then pull away from the tooth walls leaving a space quite big enough for millions of bacteria to move in and establish residence.

Another factor to be considered is that the chloroform in chloropercha, the lubricant used while pushing gutta percha in, dissipates into the smaller canals of the tooth while moving out of the main canal. This shifting takes place within a few days resulting in another 6 percent shrinkage. This results in more space for more bacteria.

Most of the shrinkage and rebound takes place in the thin area at the apex of the tooth. This creates a **haven for inflammation and bacterial growth** in an area that is practically impossible for white blood cells or antibiotics to reach and be able to kill harmful bacteria.

In finishing the procedure, silver mercury amalgam is usually inserted into the access hole and the patient is given prescriptions for pain pills and antibiotics. This creates even more problems.

Antibiotics do not kill chemicals, so the toxins in the periodontal ligament just sit there ready to be squirted out of the periodontal ligament and into the lymphatic drainage system and blood stream every time we chew. Anaerobic bacteria are safely housed in the dentin tubules and accessory canals gorging themselves on surrounding infected tissue and bone, while continuing to produce toxins that can reduce our quality of life. Meanwhile, antibiotics kill off our beneficial bacteria and never touch the harmful bacteria that are so well hidden.

Intensive testing of chemicals found in the tissues surrounding the extracted root canal teeth confirms Price’s insistence that we should not be placing something in people’s bodies that is potentially hazardous to the health of the majority of people receiving them.

Another important point to note is that people are not being given **informed consent**, allowing them to make an informed, educated choice. Informed

consent is becoming a milestone in medicine; shouldn't the dental patient be given the same courtesy?

MORE RECENT RESEARCH & FINDINGS

There are many statements about the health of root canal teeth. As should be expected, opinions are polarized in accordance with liability.

What do scientists actually find when they dissect a root canal tooth under the microscope? We examined random reports of microscopic evaluations performed by dentist/oral pathologist Dr. Jerry Bouquet. Many of the teeth examined were removed not because of pain, but because the patient was experiencing a degenerative or autoimmune disease that was felt to be related to the presence of the dead tooth. Infected root canal teeth do not always create pain because of a process called condensing osteitis. This is the accumulation of a dense calcium layer around the tooth.

Of the more than 100 reports I examined, I found none that reported clean, non-infected conditions in the surrounding bone. Following is a list of the most common findings in samples removed from bone immediately adjacent to the tooth.

Common conditions included: *"necrotic fibrovascular tissue, ischemic osteonecrosis, fibrosed periapical granuloma, necrotic stratified squamous epithelium, bacterial colonies with PMS's on the surface, granulation tissue with chronic inflammatory cells in the periodontal ligament, colonies of filamentous and coccal bacteria, scattered loss of osteocytes, chronic inflammatory cells, chronically inflamed periapical cyst, fat necrosis, dilated veins plugged by aggregated platelets, non viable osteosclerotic bone, and marrow edema"*.

Full Professor and Chairman of the departments of chemistry and biochemistry at the University of Kentucky, Dr. Boyd Haley has done outstanding research on root canal teeth. Using today's most sophisticated research methods; he has proved that minuscule concentrations of toxins removed from root canal teeth can completely inactivate the most important enzymes in the body. These include *creatine kinase, pyruvate kinase, phosphoglycerate kinase, adenylate kinase, and acidified fibroblast growth factor*.

It is not surprising, from Haley's work, to find that toxins removed from root canal teeth could be involved in the creation of so many degenerative, neurological and autoimmune diseases.

PERSONAL ACCOUNTS

The following contains comments from patients who experienced reactions shortly after having root canal teeth removed.

From my personal aspect, most patients I have seen have a total dental revision performed and sometimes it is difficult to separate the chaff from the chaff. There are patients with specific diseases that almost always have root canal teeth in their mouths, along with a variety of other toxic entities.

When a patient has only a root canal or a dead tooth removed, and no other dental treatment, symptom changes have been noted the same day. When compared with people also having amalgam removed, the same changes occur, but are sometimes even better. This leads one to suspect that all toxic dental procedures challenge the immune system in a similar fashion. To paint a vivid picture for further explanation, say you get shot in the heart, stabbed in the heart, or have an arrow in the heart, which one will kill you? Any of them can. In the same fashion, toxins from root canals, from infected gums, from cavitations, or toxic metals like mercury, copper, beryllium and nickel have essentially the same impact on the immune system. The immune system in turn has only a limited number of responses, so there is a great challenge to this system.

Some of the more obvious and immediate changes (anywhere from minutes to three days) that point to root canal teeth (more than to amalgam or nickel crowns) are as follows:

Clearing of the maxillary sinus in people who have had "sinus problems" for years, often previously treated unsuccessfully with surgical scraping of the sinus or nasal septum deviation correction. Also, changes in craving for sugar and caffeine and an improvement in memory are noted.

To cite an example, one woman flew to our office on an emergency basis on a weekend. She was coughing so profusely that death was imminent and the doctors had given up on her. Plans for her funeral had been made as well as plans for caring for her four young children. Her problems had started a few days after a root canal had been done. We removed the tooth and cut out the ligament according to our normal procedure. She coughed twice, sat up and said, "could I be feeling better already?" That was the end of her coughing and she returned to her normal life with her husband and children. Can it happen in 10 seconds? I've seen it lots of times, as have others. Toxicologist Joe Levisky made the comment once that toxic reactions can take place just as fast as the electric-related reactions we have noted.

The most significant changes are emotions. People have told me the most amazing stories. After hearing the same types of stories hundreds of times, I had to give them mention here. One common thread is flashbacks. Some people tell of experiencing flashbacks of frightening experiences from extremely early childhood. This is far beyond what is usual in the scope of adult memory. These people have never experienced flashbacks like that before. Other flashbacks are from later in childhood and usually involve emotional, physical or sexual abuse, and often in the reverse order. This is our clue to call get the psychology team into action immediately to help create a soft landing for these patients.

Other results appeared in the form of dramatic reductions of anxiety, depression and irritability within 24 to 48 hours. Some typical comments made after surgery are: *"I was always so angry, and couldn't identify why."* *"I didn't know who that person (me) was, but I didn't like her."* *"It was like emotions were trying to burst through my pores."* *"I frequently experienced fight or flight reactions when confronted with even the most trivial problems."* *"I couldn't trust my feelings. I didn't know where they were coming from."* *"My decisions were not founded in good sense. I don't know who was making them, but they could certainly be stupid. It wasn't me. The me I know today."*

Most of these people report that they just could not bring themselves to discuss their problems with spouse, relatives or counselors. Those that did seek help got very little benefit from their counseling sessions. Now they say they feel free and probably do not require counseling. They report that they can now discuss problems more openly and less emotionally than they could pre-extraction. This is all within a span of a few days.

SOUNDS SIMPLE, BUT...

Should I run right out and have my root canal teeth removed today? Absolutely not! There are two ways to do it. Fast, and right. Just removing the tooth leaves you with the original problem. Why? Because most of the original problem is in the periodontal ligament that connects the tooth to bone. Bacteria at the apex and within the dentin tubules manufacture the toxins we are trying to eliminate. Removal of the tooth gets rid of the dentin tubule *incubator*, but the toxins that have run down the tubules into the ligament are still there.

Actually, the ligament creates two different problems, both of which interfere with healing. When a tooth is removed, we expect the socket to heal. This happens if the bone and the blood clot are in actual physical contact. Dentists

are taught to remove the tooth, place a gauze sponge over the socket area, have you bite down on it as a pressure bandage and that's all. Don't touch the bone.

When a tooth is removed in this fashion, which is probably 99% of the time, the bony area of the socket reacts to the trauma of tooth removal. It detects the periodontal ligament, for fibers from the bone and fibers from the tooth have intertwined to form this structure, and when the tooth was removed, most of the ligament remained behind. Bone interprets the presence of the ligament as presence of the tooth, and stops its plans for bone healing. The top of the socket heals over with two or three millimeters of bone (1/8 of an inch) and the rest of the socket area eventually resolves into a hole in the bone called a **cavitation**. These holes are very hard to distinguish on X-ray because you are trying to see a piece of air within bone. Some cavitations can be visualized, but it requires many experiences of looking at X-rays, doing surgery, and comparing actual findings with the film in order to connect the two.

Removal of the ligament can be compared with procedures following delivery of a baby. After the baby is delivered the afterbirth must also be delivered, or the mother is in big trouble. After the tooth is removed, the ligament must also be removed with a dental surgical burr. If the toxin-infested ligament remains intact, it will continue to dispense toxins into the blood stream. Just scraping the ligament with a curette usually forces some of the toxins into the blood stream and many patients experience flu-like symptoms for about six days.

Lots of sterile salt water has to be used while cutting out the one millimeter of bone because you really should not swallow any of the toxin-contaminated ligament fragments. This surgical procedure will usually remove the majority of the periodontal ligament. (It is a bit more complicated than this, but, while I do not anticipate that you will be removing your own tooth, my purpose here is to familiarize you with the procedures and tell you why they are recommended.) The socket area is then flushed with a non-vasoconstrictor anesthetic and *now* you may bite down on the gauze sponge.

OTHER CONSIDERATIONS WITH REMOVAL

When an infected tooth is removed there will be what is called a transient bacteremia. This means that bacteria will flood the blood stream for 20 to 30 minutes while the reticulo-endothelial system cleans it up (a natural process of our amazing bodies). During that short time span, you are susceptible to having those bacteria float around and find a new home in one of the *filter organs*. These include the brain, kidney and liver. Two years later, they may have grown in volume enough to create a new problem. In order to avoid this,

(as much as I dislike antibiotics) I recommend ONE capsule of Amoxicillin (provided you are not sensitive to penicillin) one to two hours prior to the surgery. This is all you need, not 4 days of treatment. You just need to cover the first hour after surgery. This specific antibiotic is good at controlling the specific bacteria that have been in the periodontal ligament.

Vitamin C intravenously is also good protection, especially if you cannot take penicillin. For those practitioners trained in its use, an ultra small dose of insulin (3 drops) injected close to the extraction site reduces pain and enhances healing.

Ice packs and acupressure (or similar therapy) immediately after surgery both enhance healing and reduce pain. Why the acupressure reduces the need for pain medication I have not the slightest clue, but I have seen it happen for 15 years. Ice packs greatly reduce swelling and discoloration that are the hallmarks of oral surgery.

Why is this information not more readily available? Simple. Politics and money. Am I surprised? Not at all. Defending one's turf is usually more emotionally binding than seeking truths as has been shown by the history of the world; medicine and dentistry not excluded. Look at the trouble Semilweiss got into when he suggested that surgeons should wash their hands between patients and wear clean surgical gowns. The poor guy experienced a living crucifixion the last ten years of his life.

BOTH SIDES PRESENTED

If you would like to skip the next section, I won't be offended. I will present some of the **point-counterpoint** arguments that stand between you and your health. Oops, I am showing bias already. Yes, I am biased. I have treated people who have had much of their lives compromised by root canals and other dental materials. I have suffered the consequences of pointing out what I have observed and I still favor the life of the patient over the life of the tooth. My respect for good health and the experiences of seeing thousands of people get their lives back are the motivating reasons behind my writing this booklet.

Here are some point-counterpoint arguments between our political leaders, dentists and scientists who favor removal of dead tissue:

Point: Dentistry is the only health profession that keeps dead tissue in the body.

Counterpoint: Root canal teeth are not dead. They are *non-vital*, or *pulpless* teeth.

Point: Try to remove one without an anesthetic, and you'll see that it is alive. Or try to take out a dead appendix without anesthetic. If this hurts, would this prove that the non-vital appendix should be left in?

P: After a root canal is completed, it is sterile.

CP: Antibiotics would not be needed if it were sterile.

P: Antibiotics would clean up any bacteria that might be in there.

CP: Antibiotics cannot penetrate the periodontal ligament or dental tubules and have a difficult, if not impossible task, getting through the debris at the apex.

P: Infected teeth provide a focus of infection that can spread to the rest of the body.

CP: It can't happen. It is an old theory that can't be proven.

P: What about cancer? It metastasizes to other parts of the body? And why are dentists told to give antibiotics while cleaning teeth in patients who have heart problems to prevent "subacute bacterial endocarditis"? Isn't the reason for this the fear that bacteria dislodged from the infected gums might infect the heart valves?

P: Price put forward "an erroneous theory" about root canal teeth "leaking toxins" contributing to diseases of the heart, kidney, uterus, nervous system and endocrine system. This theory has been disproved by modern medicine and dental researchers.

CP: Like who? What specific research?

P: "We (conventional) dentists know who they are."

P: Scientific studies prove that root canal teeth are sterile in over 90% of the cases.

CP: Were bacterial studies for anaerobic bacteria done?

P: No.

INTERESTING ACTUAL PUBLICATIONS:

Ehrmann 1977: "Experimental evidence has shown that once the root canal of a pulpless tooth has been debrided and sterilized according to modern endodontic principles, the body's defense mechanisms can cope with any residual infection."

No literature references to the experiments were cited or available.

Here is the endodontic criteria for a successful root canal as defined by Dr. Donald Kleier - Head of Endodontics, University of Colorado School of Dentistry:

- Absence of pain
- X-ray negative

Here are suggestions for a better criteria from medical researchers outside the dental field:

- No bacteria in the root canal
- No bacteria at the apex
- Canal should be neither overfilled, nor underfilled
- Seal present at the apex to prevent bacterial percolation upon chewing

Ehrmann, 1977: "Modern endodontics is an entirely predictable procedure."

No evidence upon which to base this conclusion was found.

Grossman, 1960: "The role of toxins produced by bacteria in the oral cavity probably can be discounted in the genesis of systemic illness."

Non-supported statement.

Grossman: "Findings of bacteria on a root are not significant of infection."

Several university bacteriology professors take exception to this.

Grossman: "Amelioration of symptoms after an extraction does not prove a relationship."

Oh?

Grossman: "Extensive scientific investigations prove that root canal procedures are safe and effective."

Not one scientific publication or reference of any kind to support this panoramic proclamation.

Coolidge, quoted from 1927: "The success rate of root filled teeth is 97%."

No references confirming this figure.

Endodontic Society comment: "A pulpless tooth is not a dead tooth."
-- additional comment: "Cleaning the canal well will keep gutta percha from shrinking."

This is an entirely new concept to the world of physics. In most cases, heat makes things expand and cooling produces contraction regardless of the hygiene of the surrounding environment.

-- additional comment: "Bactericidal solutions eliminate bacteria in the canal and dentin tubules."

Absolutely no references or studies cited to support this claim.

Let us look at the scientific published literature for more evidence and less opinion. The following investigators examined "pulp-less" teeth by microscope and by bacterial plating in their laboratories.

One researcher looked only for aerobic bacteria, not anaerobes (the really dangerous ones). See if you can tell which one it was.

Researcher	# of non-vital teeth	Percent with pathology (presence of bacteria)
Gould	325	29%
Goldberg	361	92%
Burket	429	72%
Haden	455	96%
Duke	1000	81%
Ulrich	1350	83%
Rosenow	1382	81%
Haden	1500	87%
Tovell	1600	73%

Lin, 1991 sums it up with his statement, "Necrotic tissue is an excellent growth media for bacteria and is also a good protective barrier for bacteria from destruction by systemic antibiotics."

ZIP YOUR LIP!

Need more reasons for why you have not been informed? Security is one we haven't addressed yet. Apparently, he who opens his mouth pays the price. For instance, back in the 80's, the dental code of ethics read something like this: if a dentist discovers something that is either beneficial or harmful to other dentists or the public, he is *obligated* to inform both the profession and the public.

So, several dentists told their profession and the public about the hazards of mercury escaping from silver mercury amalgams, and about the hazards of root canals. As a reward for following the ADA code of ethics, many have lost their licenses and several are on probation. Untold others have dropped their voices and quietly returned to placing amalgams. Why? Because the code of ethics *changed*. Today it says something like, if a dentist tells a patient that mercury or any other dental material might be hazardous, his license is in jeopardy. It is now unethical to remove dental materials from patients for allegedly toxic reasons.

Think I'm kidding? Here is a message recently given to an East Coast dentist regarding the providing of information (similar to this booklet) to patients. "... *the practice of recommending the extraction of endodontically treated teeth for the prevention of NICO, or any other disease, is unethical and should be reported immediately to the appropriate state board of dentistry.*"

In a trial in Colorado (no negative reference to the state intended) a few years ago, Judge Nancy proclaimed that it was unlawful for a resident of the state of Colorado to request that amalgams be removed just because the patient felt that mercury might be hazardous to their health! Just imagine what this could mean: you have a PhD in toxicology and have just found out that your fillings contain 50% mercury. Knowing first hand about the results of mercury exposure, you rush to the dentist and request that the mercury be removed. Are you now eligible for fine and imprisonment? According to this law, yes! I have been told since that the "law" soon became a laughing stock in law schools, so the state legislature intervened and had it removed from her edict. Even so, the aforementioned dentist is now in the cross-hairs for license revocation? Is *your* dentist in danger for letting you read this book? Am I in danger for having written it? *Should this and all other books providing informed consent be burned?*

DOC'S SOAP BOX

Where does this leave us? What message are we receiving through acts like this? No more freedom of information, no more freedom of speech, no more freedom of choice. You do not own your body and have nothing to say about what "big brother" does to you. And especially, no more bad mouthing the dental society just because it is encouraging the use of substances that will possibly compromise a patient's immune system. **After all, Mother ADA owns the patents for the current amalgam, and encourages this type of "substance abuse."**

SUMMATION

In brief, what have we said in this book? Here is the capsule version:

We have seen a pictorial version of a root canal protocol.

We know a safe procedure for removal of a root canal tooth.

We know the mechanical considerations of the canals:

- problems finding all of the canals
- removing all necrotic tissue and debris all the way to the apex
- curved canal challenges
- accessory canal inaccessibility

We know the chemical shortcomings involving sterilization:

- sterilizing all canals completely
- sterilizing the 3 miles of dentin tubules
- inability to reach the periodontal ligament
- lack of way to clean the apical bone

We are aware of problems filling the canals:

- elastic recovery of Gutta Percha after "condensation"
- evaporation of the liquid chloropercha (6.6% more "shrinkage space")
- shrinkage of gutta percha upon cooling (30%)
- overfilling the canal (creating mechanical irritation resulting in inflammation)
- underfilling the canal (creating a protected environment for bacteria)
- obtaining a perfect seal at the apex of the tooth

To further encapsulate the savior/suicide information, let's briefly look at the practical side that you can identify by experience.

Savior Characteristics

- Keep the tooth in your mouth
- Build a post on a crownless tooth to cement a gold crown onto
- Provide an abutment for a bridge
- Provide a connecting stump on which to stabilize a denture
- Invest less money for a root canal and crown than a bridge

(Slow) Suicide Characteristics

- Can contribute to digestive problems
- Contributes to chronic fatigue by elevating urinary porphyrins
- Provides the body with toxins more adverse than botulism
- Associated with Multiple sclerosis
- Associated with other autoimmune and degenerative diseases
- Related to memory problems
- Related to emotional instability

PERSONAL NOTE FROM DOC

Since the Dental Association is not responsible to anyone, YOU, the patient, must take responsibility for determining the course of your own treatment. You and you alone own your body, and have the final word in deciding what you want (or do not want) invading your body. I love you either way, whether you want a root canal in order to save a tooth, or want them removed to prevent danger to your immune system. The decision is rightfully yours, but now you are better informed to make that decision.

There is another root canal book in progress. It details everything that is outlined in this booklet and presents much more. The purpose of this booklet is to provide an encapsulation of what I consider to be salient issues on this topic. For most patients who are considering having root canals, or who have them in their mouths at this time, this should provide adequate information to help you make a decision. If reading this stimulated your interest to learn more about the subject, there is plenty of information available on the internet.

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