

## ROOT CANAL THERAPY

### WHAT ARE MY OPTIONS?

1. Extract the Tooth – This would leave you with a gap, which would cause the adjacent teeth to gradually tilt into the space. In addition, it would cause the tooth in the opposite jaw to start the automatic process of growing out of the gum until it finds something to bite against. These processes cause a weakening of the contact point pressure around many of the other teeth which lead to food fibres, especially meat, getting jammed between the teeth, fuelling the bacteria and causing decay and gum disease. You could if you wish have the missing tooth replaced with an implant or bridge, but these options are more expensive than keeping your original tooth. Another replacement option is a denture, but this is removable and most people find them hard to tolerate. Root canal therapy followed by placement of a crown works out to be the best value for money in terms of restoring the mouth to its original function.
2. Do Nothing – If you do nothing, the infection in the nerve will usually spread down to the base of the nerve where it infects the bone inside your jaw bone. The pus created can build up pressure causing extreme pain. Sometimes, if the infection is not very virulent the small amount of pus created is absorbed by the body. You may not notice this type of infection, except on occasions when your immune system is weakened. On these occasions the bacteria get the upper hand and you can get symptoms ranging from slight tenderness, to full-on throbbing pain. The pus can build up pressure and eventually be released by creating a hole through the bone and emerging under your jaw, cheek, or through the gum. If it goes into your facial tissues, severe swelling can result, and this can be very dangerous.
3. Root Canal Therapy and Restoration – Although the nerve is dead or dying, the tooth is not. We can clean out the small space in the centre of the tooth occupied by the nerve, disinfect it and seal it up in a way that generally excludes any future problems. This is called root canal therapy and it effectively saves the tooth. The tooth still has a blood supply coming from the bone and gum, but it does not need the internal blood supply from the nerve for it to function normally.

The root treated tooth requires special precautions. It will become unusually brittle after the root canal therapy and if the top of the tooth is left exposed, it can split inside the tooth destroying any chance to save it. Due to the likelihood of this occurring, it is essential to have a restoration that provides long term protection. This is nearly always a crown. The cost of a crown is separate to the cost of root canal therapy and should be discussed with your dentist.

### HOW MUCH WILL IT COST?

Root canal therapy is a difficult, precise task requiring great expertise. The cost of this treatment depends on which tooth, and the number of canals. A separate, precise quote will be provided to you for your specific needs. If the treatment is extremely difficult, we may need to refer you to a specialist who is highly qualified to treat difficult root canal cases.

## RISK FACTORS

1. Root canal therapy is not always completely successful. Sometimes the canals in the teeth (the tiny spaces where the nerve is) are very difficult to clean out effectively, or even difficult to find. Generally speaking, root canal therapy is considered to be about 95% effective, so the odds are very good that your tooth can be saved and be free of symptoms.
2. Instruments can fracture – The very fine metallic files that are used to clean out the canals can break unexpectedly and leave the tip of the file jammed in the root canal. Sometimes a root canal specialist can remove these tips, but often it is impossible. A root canal so affected is usually sealed fairly well by the actual metal rather than the cement (which is the customary sealing method), so that it is unnecessary to do anything about the fractured instrument.
3. Under filling or over filling the root canal – Under filling can leave a small portion of the main root canal system available for bacteria to re-establish. If this happens, we will notice it on an x-ray and the root canal can be re-instrumented and filled the extra few millimetres to eliminate this problem. Over filling occurs where the cement is squished through the end of the tooth. This is almost impossible to avoid in some situations, but does not cause a problem in the vast majority of cases. Generally the body's cells carry away the excess cement with time.

## WHAT HAPPENS IF MY ROOT CANAL CANNOT BE TREATED SUCCESSFULLY?

In the case of teeth with several roots, sometimes one root can be removed and the tooth can still function quite successfully with the remaining two roots. If the tooth has a straight forward problem, sometimes it can be corrected simply by re-treating the tooth. This is usually done by a root canal specialist. If the tooth has a complicated problem, or where an infection exists at the end of the tooth and it cannot be accessed through the top of the tooth, a simple surgical procedure called an apicectomy, can be performed whereby the infected end of the tooth can be sealed or removed through the gum. This sounds threatening, but is generally not a painful or difficult procedure.

There is a class of dentists known as endodontists who only perform or specialize in root canal therapy. You have the option of going to see an endodontist to have your treatment done if you wish. Endodontists usually only do very difficult cases, with the vast majority being done by general practitioners. If a problem develops in the course of your treatment, you may be referred to an endodontist for completion. Although this may cost you more, it will provide the best outcome to keep your tooth for many years to come.

Finally, some teeth cannot be saved and in these cases extraction is the only option. Your dentist will advise you of all your options, and it is up to you to choose the best option to suit your needs. Just remember, if you decide to remove the tooth, and you wish to replace it later, it will cost more in the long run.