

# What is root canal therapy?

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## *What is Root Canal Therapy?*

When the nerve (pulp) inside the tooth is damaged and starts to die, or is already dead, then the choices for treatment of this tooth is either **root canal therapy (RCT)** or **tooth extraction**. Antibiotics may help in the short term, but the infection quickly comes back when the antibiotic treatment is finished.

So, RCT is performed when the nerve in a tooth dies. Your primary care veterinarian can assist in determining whether the nerve in the tooth is dead, however, sometimes this is difficult to tell and your veterinarian will consult with us. Photographs of the tooth can sometimes assist us in determining what is the best treatment for the damaged tooth.

RCT can be performed on any tooth in a dog or cat, but it is usually reserved for the important teeth, like the canine teeth or the carnassial teeth.

When a pet breaks a tooth due to either a motor car accident, a fight or a fall, or chews on something extremely hard, like a bone, the nerve inside the tooth can be either exposed through the break in the tooth, or the nerve can die and the tooth change colour, even when the tooth has not been broken.

This type of injury is common in dogs, often involving the upper or lower canine teeth, or the upper carnassial tooth (4<sup>th</sup> premolar tooth). In cats, the canine teeth are more likely to be broken due to falls, motor car accidents or fights. Sometimes, also in older dogs, due to tooth wear due to chronic skin disease or a life-time of chewing on bones or other hard objects, the nerve can also be exposed.

Because bacteria live in the mouth, bacteria start entering the damaged nerve and cause it to die. This can lead to toothache pain similar to what happens in man. The pain can start off as mild but can eventually get very severe. The pet may not want to chew on the damaged tooth or be reluctant to eat on that side of the mouth. Sometimes the face can swell up due to infection within the tooth, or there can be a draining sore inside the mouth that drains pus.

RCT uses small metal files and strong disinfectants to remove the infected and dead nerve and eliminate the bacteria within the tooth, until the canal is clean. Once the canal is clean, the canal is then filled, usually with a sterile rubber based material and finally a tooth-coloured filling is placed over the canal, to seal up the tooth and prevent bacteria from re-entering the tooth. RCT is performed under general anaesthesia and your pet will receive appropriate pain relief, before, during and after the procedure.

Dental Xrays are taken before starting RCT, to determine whether RCT will be successful for the pet. During the RCT, more X-rays are taken to assist in the success of the procedure. Sometimes, once the initial clinical assessment and X-rays are taken, it may be decided that extraction is the better option to manage the infection.

## **Root Canal Therapy After Care**

All RCT cases should be reviewed on a regular basis, to assess whether the treatment has been successful. This is usually done under general anaesthetic, around 12 months after the RCT has been completed. It is also important not to feed bones or let your beloved pet chew hard objects and toys, that may damage the tooth-coloured filling on the tooth or break more tooth (how the original injury may have occurred). You will need to check the filling on the tooth, on a regular basis, to make sure the filling is intact. If you have any questions or concerns, do not hesitate to contact your primary care veterinary practice or contact us via email.

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A lower canine tooth that has become discoloured (pink and grey colour). This indicates that the nerve in the tooth has died.



A broken carnassial tooth with a nerve exposure in an older dog, due to bone chewing