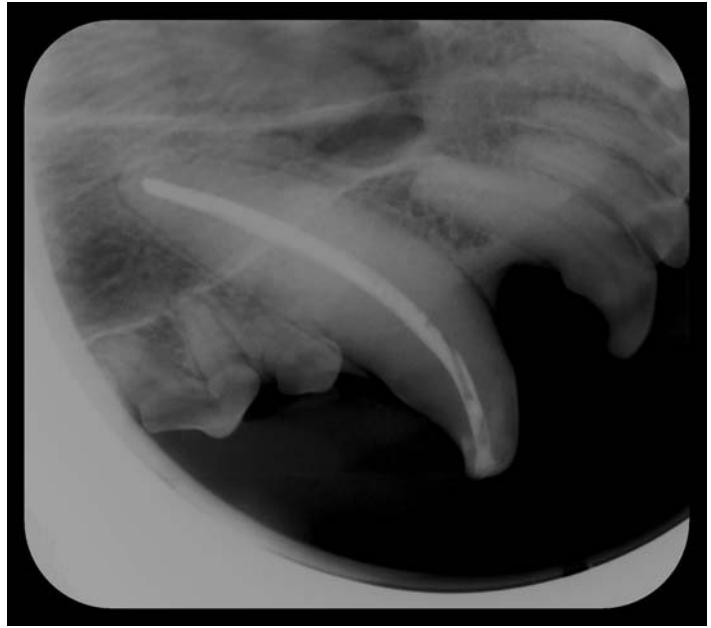


Notes from Matthew Lemmons, DVM, DAVDC

Are Broken Teeth a Problem?

When our patients fracture a tooth, treatment recommendations will depend on the severity of the damage, which tooth is broken, and the owner's expectations. Tooth fractures may expose the dentin (hard layer under the enamel) or the pulp (nervous and vascular tissue). When the dentin is exposed, there is potential for pulp infection and pain since the dentin is porous and allows indirect communication



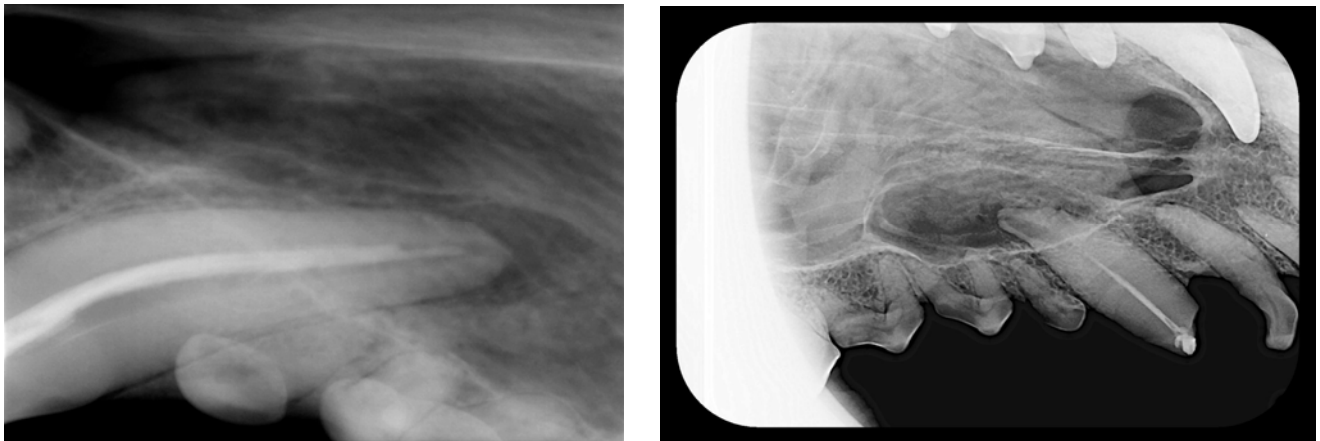
Example of successful Root Canal

with the pulp. When the pulp is exposed, it invariably becomes contaminated and without treatment is a constant nidus for localized infection. This infection manifests as localized bone loss, facial swelling and draining tracts and thus all teeth with pulp exposure should be extracted or have endodontic therapy to eliminate the infection. Teeth with dentin exposure should at least be assessed with radiographs and potentially be restored.

Teeth with pulp exposure require either root canal therapy or extraction. The recommendation of root canal therapy vs. extraction depends on which tooth is broken and ultimately the client's wishes. The eight teeth we should be most concerned about salvaging are the four canine teeth, the maxillary fourth premolars (carnassial teeth) and mandibular first molars. Not only are these teeth more difficult and traumatic to extract, they are more important for picking up objects (canine teeth) and chewing (maxillary fourth premolars and mandibular first molars). However it may be important to some clients to save less strategic teeth such as the incisors. For the teeth we wish to salvage, root

canal therapy is typically the treatment of choice. Some practitioners will choose a procedure called direct pulp capping for teeth with pulp exposure. This procedure is designed to keep the pulp alive. However the chance of failure is much higher (>75%) for this procedure vs. standard root canal therapy (<5%) and thus should be reserved only for patients in which root canal therapy is not possible such as very young dogs.

Here are two examples of poorly filled root canals leading to continued infection.



Root canal therapy consists of removing all the diseased pulp and dentin, shaping the canal and sealing the canal to prevent re-infection, allowing the bone around the root tip to heal. This is an extremely technique sensitive procedure with little room for error. Thus it is recommended to be performed by practitioners with a great deal of experience and knowledge of the anatomy and physiology.