Tooth fractures are very common in dogs. The most commonly fractured teeth are the canines and carnassials (maxillary fourth premolars and mandibular first molars).

Fractures are further characterized as complicated or uncomplicated. Complicated crown fractures have direct pulp (nerve) exposure, whereas uncomplicated crown fractures have direct dentin but no pulp exposure.¹ Both types of tooth fractures require therapy; however, treatment differs depending on the physical and radiographic appearance.

**QUESTION**
Based on the clinical evidence, what type of fracture is shown in Figure 1?
(Answer next page)

---

Read the following articles by Dr. Brook Niemiec at todaysveterinarypractice.com:
- Diagnosis & Treatment of Crown Fractures (July/August 2011)
- Bonded Sealant Application for Crown Fractures (July/August 2011)
- Dental Extractions: Five Steps to Improve Client Education, Surgical Procedures, & Patient Care (May/June 2012)

To view an informational video on fractured teeth, visit dogbeachdentistry.com.

---

Brook A. Niemiec, DVM, FAVD, Diplomate AVDC, is chief of staff of Southern California Veterinary Dental Specialties. He is the author of Small Animal Dental, Oral and Maxillofacial Disease: A Colour Handbook (Manson Publishing) and Veterinary Periodontology (Wiley Blackwell). He founded the veterinary dental telemedicine website vetdentalrad.com, lectures at national and international conferences, and is the coordinator and instructor of the San Diego Veterinary Dental Training Center (vetdentaltraining.com). He received his DVM from University of California–Davis.
ANSWER

Based on the clinical evidence, what type of fracture is shown in Figure 1?

This patient has an uncomplicated crown fracture, which is very common in large-breed dogs. These types of fractures occur when a piece of the crown is broken, exposing the dentin but not the pulp.

The radiograph (Figure 2) reveals that this tooth is nonvital and infected, both of which are evidenced by the periapical rarefaction surrounding all 3 roots (red arrows). Additional radiographic signs of endodontic disease include a wider endodontic space (or on occasion, narrower) and internal or external resorption.

References


Figures courtesy vetdentalrad.com (Importance of Dental Radiology client educational poster)