

## FRACTURED TEETH IN DOGS

Dogs love to chew! Giving your dog appropriate things to chew on is good for their teeth and gums, keeps them occupied, and decreases the tendency to chew on things they shouldn't. Unfortunately, dogs' need to chew on things also leads to lots of broken teeth.

The most common fractures of the teeth of our canine patients are called slab fractures. They occur when the dog bites down on a hard object at just the right angle to flake off a piece, or a slab, of tooth. Similar to striking a piece of flint to make an arrowhead, the size of the piece that breaks depends on the force and angle of the blow. The tooth that is almost always affected is the 4<sup>th</sup> upper premolar, or carnassial tooth - the largest chewing tooth in the upper jaw.

Unfortunately, because this tooth is fairly far back in the mouth it is difficult to see. Many times the pet has a fractured tooth and the owner doesn't know it's there until an abscess forms. We find many of these fractured teeth when we do our routine annual exams on our patients. Some-times the same tooth is broken on both the right and left sides of the mouth. Many of these broken teeth are seen in large breed dogs, who are more likely to be given hard objects to chew on. Chewing on cage bars, wire fencing, rocks and other inappropriate objects can also lead to problem teeth.



Split carnassial tooth, with exposed root (red spot under broken piece), and moderate tartar buildup

How much damage is done to the tooth depends on the size of the piece that breaks off. If the piece is shallow the enamel will be rough, causing tartar to build up more quickly than on a normal tooth. However, with proper dental care, the tooth should remain in pretty good shape. If the broken piece is large enough to expose the root of the tooth, however, the tooth should be removed. The exposed root and nerve are painful to the dog, and provide access for bacteria to enter the tooth. If not removed, sooner or later an abscess will form. An infected, abscessed tooth is even more painful to the dog than the exposed nerve. A swelling will form under the eye, where the tooth root ends, which will eventually burst open and drain pus. This chronic infection also infects the rest of the body, leading to fever and damaging the kidneys, liver and heart.

The upper 4<sup>th</sup> premolar tooth is a 3 rooted tooth. Although only 1 root is generally exposed under the fracture, all 3 roots have a common pulp cavity inside the tooth. It is common to perform a root canal for a broken canine (fang) tooth that only has one root. However, the anatomy of the 4<sup>th</sup> premolar makes a root canal a poor option for this tooth, which is why we recommend extracting it instead. Because this tooth is so big, removal leaves a large hole in the gum, which will usually be sutured closed. Antibiotics will be needed for at least a week, longer if the tooth was abscessed. Pain medication at the time the tooth is pulled, and for about a week afterwards, is also necessary.

The most commonly chewed items to cause fractured teeth are chew hooves, actual hooves from cows, which are available at most pet stores and many supermarkets, sometimes smoked or otherwise flavored. These are simply too hard, and should not be given to any dog, no matter how large. Ice cubes and bones are often responsible as well. Any bones you give your dog should be boiled first to soften them. They should be large, preferably cow bones, and never poultry bones, which can splinter and puncture the stomach or intestines. We don't recommend feeding any bones to dogs, not only because of these problems but also because of the risk of E. coli and other infections. Feed your best friend dog food, not bones! Even nylon bones can be too hard and cause fractured teeth. If you give your pet ice, it should be chipped or shaved ice, not cubes.

Choose toys and treats for your pet very carefully. Get into the habit of brushing your dog's teeth if he'll tolerate it, or at least check the teeth and gums regularly. You may find tartar, gum disease or occasionally tumors, as well as fractured teeth. Call us right away if you discover a problem in your dog's mouth. Dental disease is extremely common in pets, shortening life spans and causing needless pain and suffering.