COMMON DISORDERS OF THE TEETH

Periodontal disease:

Periodontal disease starts with the build-up of tartar and/or gingivitis (inflammation of the gums). Both are caused by bacteria – the tartar that builds up on the teeth is 80% live bacteria and the rest is mineral deposits. Bacteria start out in the tartar and then work their way into and under the gums. Then they invade up along the roots of the teeth, eroding the tissues & bone attachments to the tooth and destroying the bone itself. Once 50% or less remains of the bone surrounding a root the tooth is no longer salvageable and must be extracted.

The tooth in the picture has extensive erosion of the gum and the bone, leaving most of one root completely exposed. This tooth will need to be extracted.

Tooth resorption:

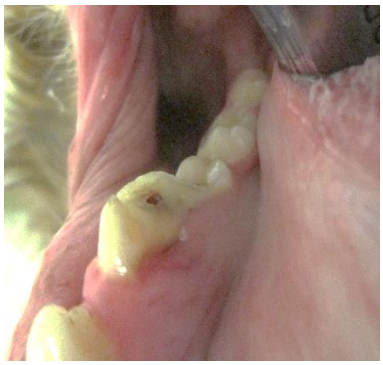
More than half of all cats over three years of age have at least one tooth affected by resorption, and we are finding it more and more frequently in dogs as well. A resorptive lesion is like a cavity. In cats it starts at the gumline as a small defect in the enamel of the tooth. Over time, it erodes more and more of the tooth, eating into the dentin and eventually the pulp of the tooth. In dogs, these lesions usually start below the gumline where they are only able to be seen on x-rays of the teeth.

This is what a resorbing tooth looks like before it is extracted.

In cats, these lesions progress fairly rapidly and extracting the tooth is the only treatment. Sometimes in dogs root canals can be done and the teeth can be stabilized and saved. It is imperative that these cavities be treated one way or the other, as they are very painful.

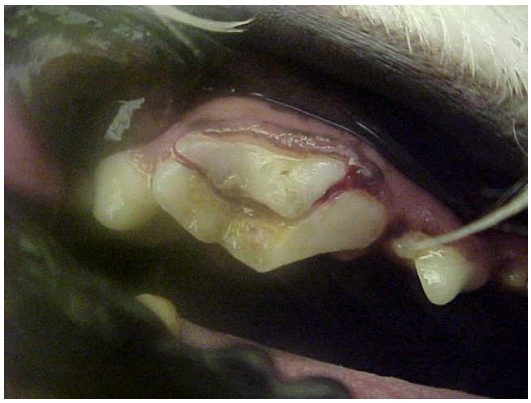
In this picture, the part of the tooth below the blue line is the crown, the part you would see. Above the line is the tooth root, with the large hole in it. Some resorptive lesions cannot be seen except with an x-ray.

Fractured teeth:



Chipped and broken teeth are very common, especially in dogs. If a chip or broken piece is small the tooth may be OK for the short term but once the enamel has been roughened or removed plaque and tartar will accumulate more quickly and the tooth may eventually succumb to periodontal disease. If a root or the tooth pulp is exposed bacteria will soon find their way into the center of the tooth and will destroy it from the inside out. Broken teeth with pulp exposure need either root canal or extraction.

In this picture, you can see the hole in the tooth where a piece has broken off. Notice that you are looking at the tongue side of the tooth. This fracture and resultant pulp infection wasn't visible until we anesthetized the dog and pulled her tongue out of the way. Any change in eating or chewing may mean something is wrong, even if nothing is obvious when we look in a pet's mouth.



The most common tooth to fracture is this one, the upper 4th premolar. This is the largest tooth in the upper jaw and the one used for gnawing. Any hard object can break the tooth this way – bones, ice cubes, hooves, antlers, even hard plastic toys. If an object is rigid and cannot be flexed or dented easily it should not be given to a dog. If not treated, this tooth would eventually abscess, causing a hard swelling underneath the dog's eye.

Discolored teeth:

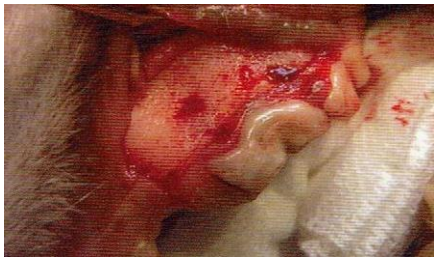
We often see discolored teeth when we perform an oral exam on a dog. A tooth, usually a canine tooth or incisor, may be pinkish, grayish or tan in color instead of the normal white. The discoloration of the tooth occurs when the blood supply to the tooth has been damaged. The front teeth are more prone to damage from banging into things, chewing hard objects or aggressively tugging on something.

Discolored teeth may appear pretty normal on dental x-rays but inside the tooth the pulp is dying. This is a painful process that can lead to infection. It should not be ignored. Affected teeth should either have a root canal performed or be extracted.

How is a tooth extracted?

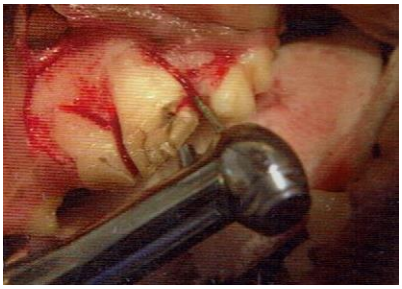
Teeth that are loose may be easy to remove but most teeth are best extracted surgically. This means we make a flap in the gum so that we can remove bone around the tooth roots. If the tooth has multiple roots we cut the tooth into individual root segments. Then each root is elevated and removed separately. Post-extraction x-rays may be needed if a root breaks off and needs to be removed in pieces, to ensure that the entire root was extracted. We smooth the rough edges of bone with the drill and then the root sockets are flushed with saline before suturing the gum flap back down again.

Picture #1: Here is a broken tooth that needs to be removed. The dots outline where the gum flap will be.

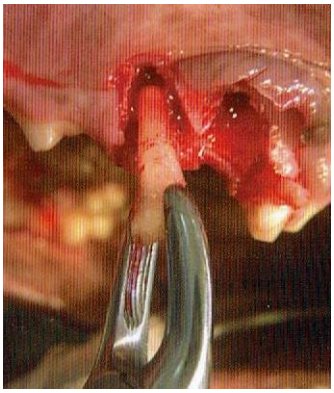


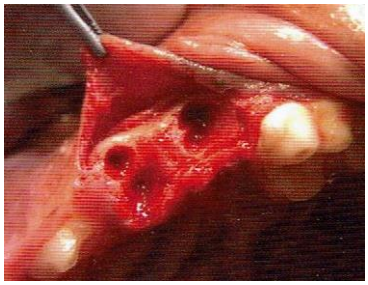
#2: Using an instrument called a periosteal elevator, the gum has been peeled back off the bone underneath.

#3: The broken piece of tooth has been removed. Much of the bone around the roots of the tooth has been drilled away and the tooth has been split down the middle.



#4: Each tooth root is removed separately. Removing the surrounding bone first prevents the root from breaking as it is extracted.





#5: All three roots have been carefully removed. Any sharp edges will be smoothed down and the sockets are flushed with saline.

#6: The gum flap has been sutured back into place. The sutures will dissolve on their own in a few weeks. This extraction procedure would have taken 30-40 minutes from start to finish.

Many clinics do non-surgical extractions, no matter what the problem is with the tooth. When tooth roots are just pried out without removing any bone they tend to break, leaving the tips of the roots still embedded in the bone. Not only is this painful for the pet, because the pulp and nerve are not removed, but root tips often fester and abscess. We often have to repair the poor job that other veterinary clinics do months later when the dog or cat is obviously painful – drooling, not eating, pawing at the face. It's always better to do the job right in the first place. Fixing it later will cost more and be much harder on your pet.