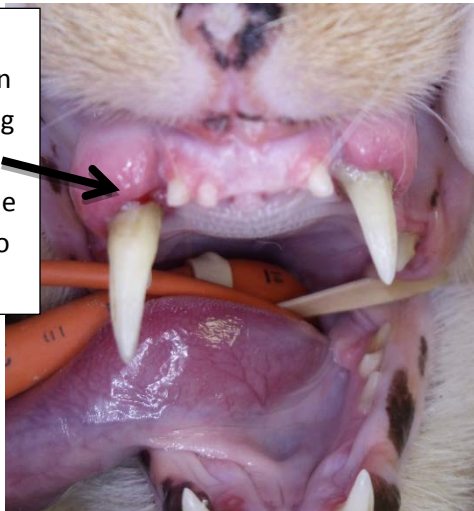


## Periodontal Disease in Cats

Periodontal disease is a progressive disease of the tissues surrounding the tooth root (see our handout on *tooth anatomy* for more information). As the tissues that support the teeth in its socket are destroyed, bacteria and by-products of the inflammation caused by the infection spread into the surrounding bone and can lead to sinus infections, bone loss and stress on the heart, liver and kidneys. Bone damage from infection can lead to pathologic fractures of the jaw (the jaw breaks during normal activity because it has been severely weakened by the chronic inflammation). In cats another manifestation of periodontal disease is called Buccal Bone Expansion. This looks as though the gum tissue and bone around the tooth are bulging out. They may also have extrusion, or hyper-eruption of their canine teeth that can make these teeth appear longer than they actually are.

This cat has severe buccal bone expansion and extrusion affecting the canine tooth on this side more than the other. This is all due to periodontal disease!



Another cat demonstrating the bone loss associated with BBE – one of the canine teeth even broke off due to the periodontal disease!

**Plaque** is the cause of periodontal disease. It is an invisible film that forms on tooth surfaces containing saliva, food products and normal oral bacteria. Plaque can be removed with preventive care, so that the periodontal disease does not progress.

**Stage 1 Periodontal Disease** is gingivitis. Gingivitis occurs when plaque remains on the tooth crown, causing inflammation of the gum line. As the first stage of periodontal disease, it is reversible with timely treatment. (See our handout on teeth cleaning: *COHAT*)

Mild plaque and gingivitis on the mandibular premolar and molar teeth – Notice the pink puffy line around the base of the tooth, but normal bone levels on radiographs.



**Stage 2 Periodontal Disease** develops when the bacteria in the plaque cause more inflammation and deeper invasion beneath the gum line, leading to early loss of bone. Dental radiographs (x-rays) are necessary to evaluate the roots and bone, and to stage the periodontal disease. Bone loss may be permanent, and without proper intervention, will progress rapidly. Pockets under the gum line (subgingival pockets) are curetted with ultrasonic and hand instruments. Pockets greater than 5mm or areas of bone loss that are not accessible with instruments will require **open root planing**. By surgically exposing the affected tooth root and bone, we can properly clean away diseased subgingival tissue and debris adhering to the root surface, and keep the periodontal disease from progressing further.

**Stage 3 Periodontal Disease** is reached when **25-50%** of the bony support of the tooth root is lost. This may necessitate extraction, especially if the bone loss is in an area of close contact between two teeth (the furcation). Some areas of bone loss can be treated with **open root planing** to remove all of the diseased tissue and clean the root surface. Other specialized treatments, including guided tissue regeneration and periostealics like Doxycycline may aid in bone regeneration and stabilizing the disease at this level. It is imperative to maintain excellent daily preventive home care, and regular professional treatment to prevent progression.

**Stage 4 Periodontal Disease** indicates more than **50%** loss of bone support of the tooth root. This is end-stage periodontal disease and requires extraction of the tooth to prevent further spread of the infection and bone loss.



This lower canine tooth has lost about 80% of the supporting bone, and as a result has developed a tooth root abscess which is causing the draining tract on the chin.

**All four stages can be present in one mouth, so each tooth is assessed and treated accordingly.**

Regular veterinary exams are important to detect any oral diseases and initiate treatment. Periodontal disease can be arrested with proper treatment, but **bone loss is irreversible**. The key to managing pre-existing periodontal disease and preventing progression is consistent daily home care. Because plaque is invisible, preventive care should be done even though the teeth do not appear “dirty”. (See our handout on *home dental care*) Early training and behavior modification to allow thorough daily tooth brushing for plaque removal is the key to success. Additional aids to plaque removal are VOHC ([www.vohc.org](http://www.vohc.org)) approved dental diets such as Hill’s T/D diet and treats such as Greenies. For the full list, visit their website and ask us about different toys and tools you can use at home.