Dentistry at Four Paws Veterinary Center

Did you know that 80% of animals over 5 years of age have some form of dental disease? At Four Paws, we use the latest techniques and modern equipment to provide the best dental care for your pet. You have been given this handout because we have identified dental disease in your pet. The handout explains exactly what is involved in the dentistry procedure at Four Paws.

10 steps to a healthy mouth

1. **Physical examination**: Every animal we see has an examination of the mouth performed as part of the general physical examination. We can see if there is obvious disease in the mouth, and get a rough idea of what we may need to do during a dental procedure. It is difficult to fully examine the mouth of an awake pet and we can only see the crowns of the teeth, NOT the roots. We will provide a rough estimate for the procedures we may need to do; which includes the anesthetic induction a thorough cleaning, and expected diagnostics. We may find more problems during the dental procedure and in this case we will call you to discuss our findings and give you an exact cost for our recommendations.

2. **Preoperative bloodwork and examination**: Any animal that receives general anesthesia at Four Paws gets a physical examination on the day of the procedure. Bloodwork is done prior to the procedure to make sure the pet's kidneys and liver are healthy.

3. **General anesthesia:** Dentistry requires an animal to be under a general anesthetic. In addition to the veterinarian, all patients have a Licensed Veterinary Technician (LVT) overseeing the procedure. The patient is anesthetized, and an IV catheter and anesthetic monitors are placed. A veterinary technician closely monitors the patient during the dental procedure, and IV fluids are given throughout the procedure to help process the anesthetic.

4. **Scaling**: Scaling is the process where the tartar is removed from the teeth. Tartar is produced by bacteria that live on the teeth. Tartar causes inflammation of the gums (gingivitis) and this leads to recession of the gums, exposure of the tooth roots and eventually loss of the tooth. We remove the tartar with a combination of an ultrasonic scaler and hand scaling (just like human dental hygienists). Removal of the tartar on the teeth and below the gumline is vital to improving the health of the mouth. This also removes the source of the patient's halitosis (bad breath).

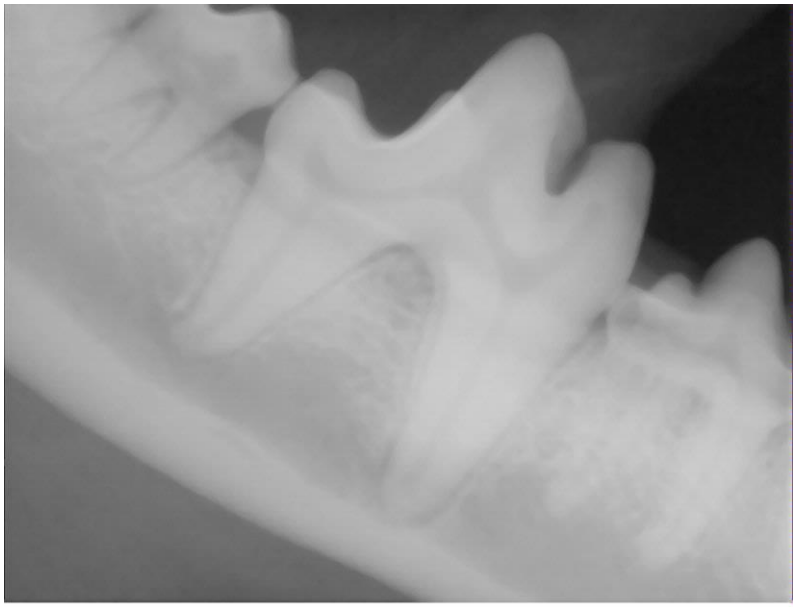
The ultrasonic scaler is being used to remove tartar from the cat's teeth

5. **Periodontal probing**: Once the teeth have been scaled, each tooth is examined individually with a periodontal probe. We use the probe to look for gingival pockets. Pockets are caused by the gum losing its attachment to the tooth. Bacteria and tartar can accumulate in the pocket causing the wall of the tooth socket to erode. This leads to loosening of the tooth in the socket and eventually this leads to tooth loss. A small pocket may be cleaned and flushed, but a deep pocket usually requires that the affected tooth be removed.

A periodontal probe is being used to detect periodontal pockets in this cat

6. **Intraoral Radiology**: The only way to accurately evaluate the whole tooth is to x-ray it. The crown is the only visible portion of the tooth. The root of the tooth is embedded in a socket in the jaw bone. In many cases the crown of the tooth may appear normal, but an x-ray of the tooth may reveal a problem with the root that requires treatment. Once the x-rays have been taken, the veterinarian reviews the x-rays and decides on what therapy is required for each tooth.

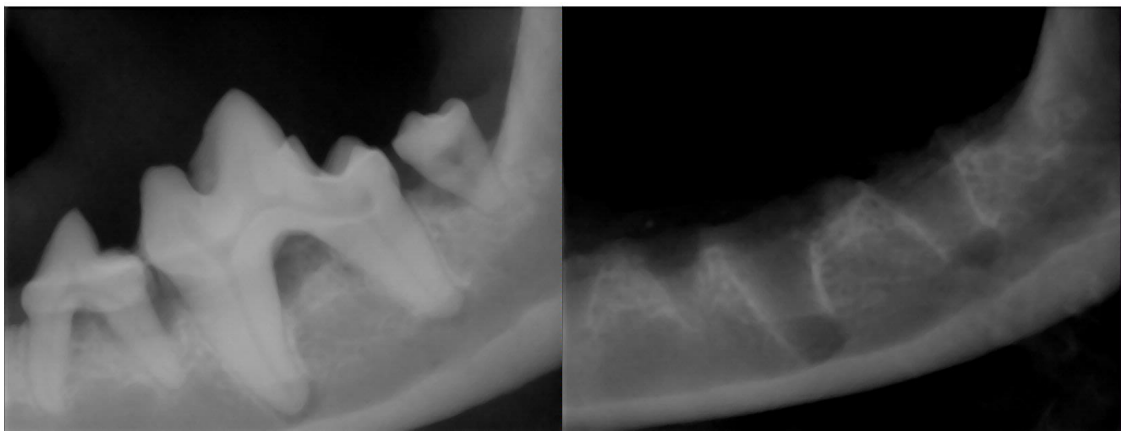
We use a digital dental x-ray system to get clear images of the tooth roots below the gum line and the jaw bone. The x-ray is then analyzed by the veterinarian.



Above is an x-ray of a dog's lower jaw produced by a digital dental system.

Digital Dental X-rays

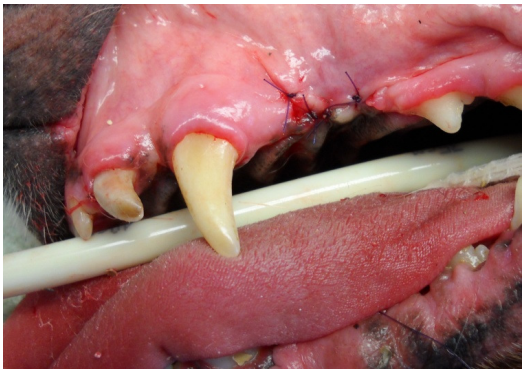
Above is an x-ray of a dog with severe dental disease. You can see that the bone around the roots of the teeth has receded away from the tooth roots. These teeth will need to be removed.



Once we have removed the affected teeth we take another x-ray to make sure that all of the roots have been removed and there is no damage to the jaw bone.

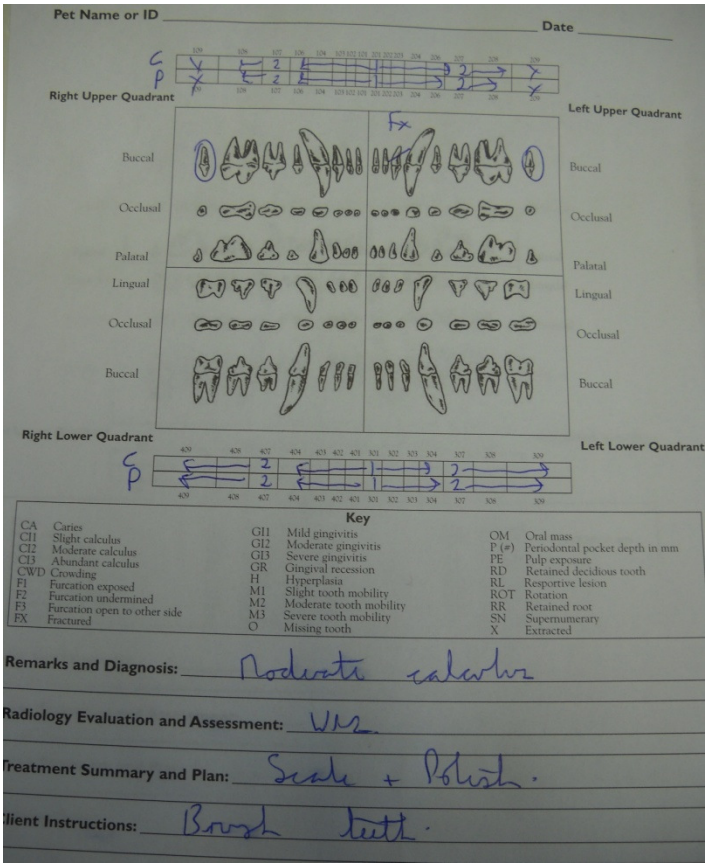
7. **Extractions:** If serious dental disease is found, it may be recommended that teeth be extracted. Some teeth have only one root and can be extracted using basic techniques. For additional pain control we often place a local anesthetic block to numb the tooth. Even though the patient is under an anesthetic removing a tooth can cause pain and the local block gives the patient immediate pain relief. The effect lasts for several hours to offer the patient post-operative comfort. Once the block has taken effect, we elevate a flap of gum tissue to expose the jaw bone. A high speed drill is used to cut the tooth into sections to allow for easier removal. The tooth is removed using special instruments. Once the tooth is removed the socket is cleaned. A post extraction x-ray is taken to make sure that all of the roots have been removed. Once we have confirmed that there are no tooth root remnants, we close the socket using the gum flap. This prevents food material from becoming lodged in the empty socket. The flap is sutured with a fine absorbable suture.

A local anesthetic block is being placed prior to removal of the tooth with the exposed roots.



The tooth has been removed and a gingival flap is sutured over the socket.

8. **Charting**: The combination of radiology and periodontal probing allows us to accurately diagnose any problems with the teeth, formulate a treatment plan, and document the procedure.



The dental chart is used to precisely record findings and treatments.

9. **Recovery:** Our technicians make sure the patient is warm and comfortable while awaking from the anesthesia. We continue to monitor and administer IV fluids while they are recovering to hydrate and flush their system. The technician contacts the pet owner to let them know who they did and when they will be recovered enough to go home.

10. **Post operative care**: We will give specific post operative instructions. This may include soft food and no toothbrushing for a few days. We will discuss at-home treatment options designed to reduce the accumulation of tartar on the teeth. The treatment options may include a combination of toothbrushing, specifically formulated dental diets, and special chews designed to discourage plaque build up.