

Periodontal Disease

Periodontal disease is the most common clinical condition occurring in adult dogs and cats, and is entirely preventable. By three years of age, most dogs and cats have some evidence of periodontal disease. Unfortunately, other than bad breath, there are few signs of the disease process evident to the owner, and professional dental cleaning and periodontal therapy often comes too late to prevent extensive disease or to save teeth. As a result, periodontal disease is usually under-treated, and may cause multiple problems in the oral cavity and may be associated with damage to internal organs in some patients as they age.

Periodontal disease begins when bacteria in the mouth form a substance called plaque that sticks to the surface of the teeth. Subsequently, minerals in the saliva harden the plaque into dental calculus (tartar), which is firmly attached to the teeth. Tartar above the gum line is obvious to many owners, but is not of itself the cause of disease.

The real problem develops as plaque and calculus spread under the gum line. Bacteria in this 'sub-gingival' plaque set in motion a cycle of damage to the supporting tissues around the tooth, eventually leading to loss of the tooth. Bacteria under the gum line secrete toxins, which contribute to the tissue damage if untreated. These bacteria also stimulate the animal's immune system. The initial changes cause white blood cells and inflammatory chemical signals to move into the periodontal space (between the gum or bone and the tooth). The function of the white blood cells is to destroy the bacterial invaders, but chemicals released by the overwhelmed white blood cells cause damage to the supporting tissues of the tooth. Instead of helping the problem, the patient's own protective system actually worsens the disease when there is severe build-up of plaque and tartar.

Periodontal disease includes gingivitis (inflammation [reddening] of the gums) and periodontitis (loss of bone and soft tissue around the teeth). There is a wide range in the appearance and severity of periodontal disease, which often cannot be properly evaluated or treated without general anesthesia for veterinary patients. Effects within the oral cavity include damage to or loss of gum tissue and bone around the teeth, development of a hole ('fistula') from the oral cavity into the nasal passages causing nasal discharge, fractures of the jaw following weakening of the jaw bone, and bone infection ('osteomyelitis'). Bacteria from the mouth can enter the bloodstream and are carried around the body. Studies in dogs have shown that periodontal disease is associated with microscopic changes in the heart, liver, and kidneys.

Studies in humans have linked periodontal disease to a variety of health problems including poor control of diabetes mellitus and increased severity of diabetic complications. Additionally, it has been shown that diabetes is a risk factor for periodontal disease.

Treatment of periodontal disease is multi-faceted. If your pet has tartar or large amounts of plaque present, professional dental cleaning is required, which includes a thorough oral examination, scaling and polishing. Abnormalities found are recorded on a dental chart. Dental radiographs may be required to correctly diagnose and assist in treatment of patients with extensive disease. When periodontitis is present, several treatment options may be employed to save the teeth. The patient's overall health, the cost of specific treatments, and the owner's willingness to provide home oral hygiene must be taken into account prior to performing periodontal therapy - without likelihood of diligent home care subsequently, periodontal therapy is not indicated, and severely involved teeth should be extracted.

Home oral hygiene can improve the periodontal health of the patient, decrease the progression of the disease and decrease the frequency of or eliminate the need for professional dental cleaning. Implementing home oral hygiene at a young age can help the pet accept life-long oral care. Consult your veterinarian about proven home oral hygiene strategies that can be employed to help maintain your pet's dental health. Be cautious about miracle remedies advertised on the internet or sold in pet stores. Many of these are unproven and may be worthless - like many other things in life, when something seems too good to be true, it usually is. When properly cared for, teeth can remain in healthy condition in the mouth, and the risk of associated health complications can be reduced.