

Dental Disease

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Oral hygiene has perhaps been the most neglected aspect of pet health care. It is estimated that 90% of pets over 2 years of age have significant mouth disease and of that 90%, fully 50% require immediate attention. It should come as no surprise that this is the case. After all, dogs and cats have teeth just like we do, and the same conditions that lead to our tooth and gum problems also occur in our pets' mouth. Perhaps a review of some oral disease terms would help in understanding the problem. *Plaque* is composed primarily of bacteria (approximately 80%), along with saliva and food debris, and is both quite soft and almost invisible. It is deposited on irregular surfaces of the teeth. Over time and with the addition of minerals, the plaque hardens and forms *calculus* (tartar).

Plaque and calculus formation occurs in all dogs and cats with various rates of deposition. Generally speaking, the small breed dogs such as Yorkshire Terriers, Toy Poodles, etc. are more prone to tartar buildup. This is possibly due to the soft diet these dogs are often on, as well as overcrowding and abnormal angulation of the teeth. Through genetic selection, man has reduced the size of the skeleton of these dogs, as well as often shortened the nose and jaw. The size of the teeth has not decreased proportionately, resulting in overcrowding and rotation. This abnormal anatomy leaves these breeds especially prone to oral disease. Inflammation of the gums occurs as the plaque and tartar accumulate on the surface of the tooth. This is called *gingivitis*. This occurs because the debris in the space between the tooth and gums, known as the gingival sulcus, and causes irritation and infection. If this process goes unchecked, the supporting structures of the tooth degenerate. This process is known as *periodontal disease*. Once established, this disease is very difficult to cure, and often its relentless progression can only be slowed. Deep pockets filled with pus and debris form, leading to *halitosis* (bad breath). The gums become separated from the tooth (periodontal pockets) and the supporting alveolar bone recedes. This causes much pain and discomfort and often leads to tooth abscesses and eventual tooth loss. *Dental caries* (cavities) are not common in dogs, but diets high in carbohydrates can contribute to their formation. In cats, a special problem occurs called *resorptive lesions*. These are painful holes through the enamel into the sensitive dentin and pulp. If left unchecked, they can lead to very painful mouths and tooth loss. As well as pain and discomfort, periodontal disease puts your pet at risk for other problems such as lung, heart, kidney, and joint infections. This occurs because bacteria get into the bloodstream (a process called *bacteremia*) and can become widely distributed throughout the body. If your pet has existing periodontal disease, the only way to clean the teeth is under general anesthetic. The teeth are explored with a probe to map the *pockets* (a 6 point exam on every tooth), then hand and /or ultrasonic scaling of the crown (exposed tooth) is done followed by a thorough cleaning below the gum line. The tartar you see on the tooth is not where the main disease process occurs! Polishing removes the microscopic scratches on the teeth that cleaning causes. Thorough oral hygiene by your veterinarian takes anywhere from 35 minutes to over 2 hours depending on the severity of the mouth problem. Please avoid giving your dogs bone and cow hooves to chew on. These often cause tooth fractures requiring root canals or extractions.