

Tooth Resorption in Dogs

While it has long been recognized that many cats suffer from *tooth resorption*, we are increasingly finding this mysterious condition affecting dogs. Is the incidence truly increasing or are we just recognizing the condition more now because we are looking for it? Regardless, tooth resorption in dogs is now common and should always be looked for.

Consider the *primary* or baby teeth. In many species, including humans, dogs and cats, primary (baby) teeth erupt early in life but last a short while only to be replaced by the *adult* (permanent) teeth which are intended to remain in place for life. In order for the primary teeth to fall out, specific cells resorb (eat) the primary tooth roots. This process begins at the tip of the root(s) and progresses from there toward the crown. When there is insufficient root structure to support the crown, the primary tooth becomes loose and then falls out.

In the early stages, while the resorption is going on below the gum line, there is no inflammation or pain associated with it. Once the resorption breaks through the level of *gum tissue* attachment, it becomes contaminated with oral bacteria, becomes inflamed and painful. With the primary teeth, this 'teething pain' is short-lived as the tooth soon falls out, the adult tooth erupts and the tissues heal.

Adult tooth roots are not supposed to undergo resorption. There are supposed to remain intact and unchanged on their outer surface for life. For reasons we do not understand, the adult teeth in dogs may also undergo resorption but it is rarely the nice, organized form of resorption seen in

primary teeth that allows the tooth to quickly fall out and the tissues to quickly heal.

With the adult teeth, the resorption can start anywhere on the root(s) of the teeth and can take a number of forms. From left to right, the radiographs below show (a) some normal right lower molars and premolars, (b) advanced resorption of these same teeth in another dog with loss of distinction between root and bone, (c) similar advanced resorption of the left upper 4th premolar, (d) moderate to advanced resorption of the right lower premolars with a clear distinction between root and bone, (e) a large lesion of the right upper canine tooth associated with periodontal disease.

Lesions deep in the sockets isolated from oral bacteria are likely not painful and so may not require immediate extraction. Any lesions that are near or through the level of gum attachment require extraction. They either are now or soon will be very painful and there is no way to repair the damage.

We do not know what causes tooth resorption in dogs. **We do know that lesions that have extended through the level of gingival attachment are very painful.** We also know that dogs that have had some tooth resorption are likely to develop more. We currently have no recommendations to prevent new lesions and have no way of predicting the rate of progression, which teeth will be affected next or when. All we can do is monitor and extract teeth as they become clinically relevant. This will mean radiographing and examining the teeth on an annual basis or sooner if the pet shows signs of oral pain.

