

Dental Abnormalities in Puppies & Kittens

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Puppies and kittens can have congenital or acquired teeth and jaw abnormalities that should be addressed quickly to prevent lifelong morbidity.

Abnormalities such as persistent deciduous teeth (**Figure 1**) can cause crowding and predisposition to periodontal disease. Deciduous teeth still present when permanent tooth eruption occurs may disrupt the normal position of that tooth and lead to acquired malocclusion.

Congenital malocclusions are often apparent within weeks of birth; many are a result of skeletal abnormalities, such as mandibular brachygnathism, which can result in mandibular

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Persistent Deciduous Incisor & Canine Teeth
 This condition results in a double row of teeth (ie, shark mouth). It can also be difficult to differentiate between permanent and deciduous incisors, but as a general rule permanent incisors erupt rostral to deciduous incisors. Deciduous teeth should be identified correctly before extraction.



1A

Persistent Deciduous Canine Teeth in a Dog

Presence of these teeth during eruption of permanent canines can cause the maxillary canine to be pushed mesially and the mandibular canine to be pushed lingually, resulting in malocclusion.



1B



1C

Persistent Deciduous Mandibular Canine & Incisor Teeth
 Radiograph showing deciduous teeth smaller and thinner than their permanent successors, which can present a challenge during extraction.

distocclusion (Figure 2). Malocclusions, whether acquired or congenital, can cause significant discomfort for a pet during mastication and lead to soft tissue damage and oronasal communication.

Missing teeth should always be investigated with dental radiography to determine whether they are truly missing or are impacted. Soft tissue impactions may resolve if treated early in the eruption phase (Figure 3). Hard tissue impactions also need



Mandibular Brachygnathism

In this common congenital skeletal abnormality, the mandible is considerably shorter than the maxilla, causing the mandibular canine teeth to be in contact with the soft tissues of the maxilla. If not treated, this abnormality can cause significant patient discomfort and result in oronasal communication. Crown reduction and endodontic therapy of the permanent mandibular canine teeth can create a functional and comfortable occlusion.

Mandibular Distocclusion in a Puppy

Distocclusion is an abnormal rostral-caudal relationship between the dental arches in which the mandibular arch occludes caudal to its normal position relative to the maxillary arch. The mandibular canine tooth is occluding with the hard palate adjacent to the maxillary canine tooth.



Soft Tissue Impaction

Note the carnassial teeth are covered by thick gingival covering or operculum in this Jack Russell terrier (7 months of age).

Operculectomy/Gingivectomy

Within weeks of operculectomy/gingivectomy to relieve soft tissue impaction impeding the eruption of the carnassial teeth, the teeth had fully erupted.

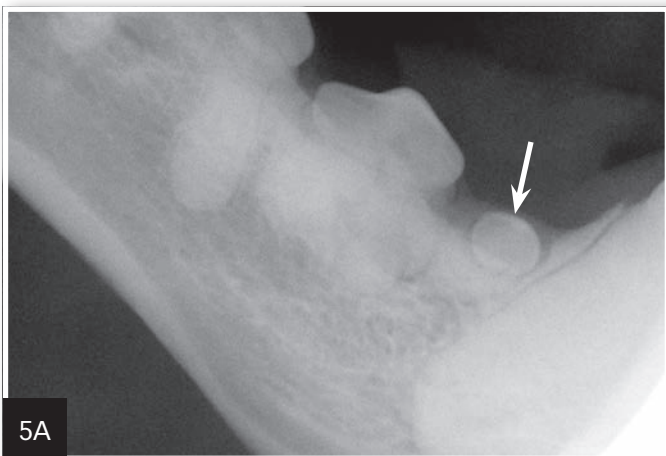
to be addressed quickly if normal eruption is to occur. If a tooth fails to erupt, it will need to be extracted to prevent dentigerous cyst formation (**Figure 4**), a potentially destructive process that can affect adjacent teeth and bone (**Figure 5**). ■ **cb**

See **Aids & Resources**, back page, for references & suggested reading.



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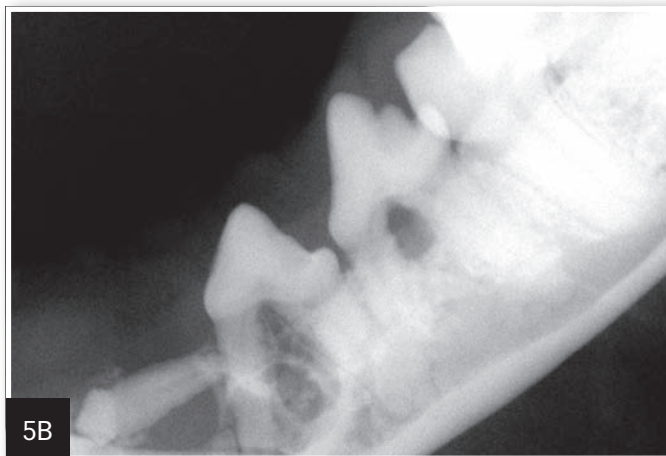
Fluctuant Left Mandibular Swelling
Left mandibular first premolar was missing in this Cavalier King Charles spaniel (6 years of age).



5A

Cystic Lesions

If an impacted right mandibular first premolar is not treated, impaction can lead to formation of destructive cystic lesions (**arrow**) as seen in the dog from **Figure 4**.



5B

Dentigerous Cyst

Impacted left mandibular first premolar with a radiolucent lesion surrounding the impacted tooth consistent with a dentigerous cyst. The impacted tooth and affected adjacent teeth should be extracted and the cyst debrided before further bony destruction and tooth loss occur.