Retained Deciduous Teeth
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A deciduous tooth is considered retained as soon as the permanent tooth erupts. The permanent tooth does not need to be fully erupted for the deciduous to be considered retained.

**Cause**
The most common cause for a deciduous tooth to be persistent is an incorrect eruption path of the permanent. This will result in the deciduous tooth staying in the mouth and the permanent tooth erupting alongside. This is contrary to the classic but mistaken belief that a retained deciduous tooth *causes* the permanent tooth to erupt in an unnatural position.

**Appearance**
This is most common in toy and small breed dogs, but can occur in any breed as well as cats. The most common teeth affected are the canines, followed by the incisors, and premolars; and it is typically bilateral. Oral exam will reveal additional teeth in the arcades, which often appear crowded. (Figure 1) In addition, the adult teeth are typically deflected into an abnormal position. This unnatural position may cause tooth or gum trauma leading to possible infections of teeth or even the nose. (Figure 2) Studies have shown these orthodontic problems can occur within 2 weeks after the adult teeth erupt. In addition to orthodontic consequences, periodontal problems also occur with retained deciduous teeth. This is due to the adult and puppy tooth being crowded together. (Figure 3) The abnormal anatomy results in a weakened periodontal attachment and increased susceptibility to future periodontal (gum) disease. This is even more concerning given the fact that the patients who tend to retain teeth (toy and small breeds) are also more prone to periodontal disease.

![Figure 1: Retained deciduous teeth in a canine patient](image1)
![Figure 2: Palatalclusion of the mandibular right canine causing palatine trauma](image2)
![Figure 3: Significant periodontal disease secondary to a retained deciduous canine in a cat.](image3)

**Treatment**
There should never be two teeth of the same type in the same place at the same time. Therefore, any persistent deciduous teeth should be extracted *as early as possible*. Do not wait until 6 months of age to perform the extractions along with neutering. The time of adult tooth eruption is 3-4 months for incisors and 5-6 months for canines. You should examine your pet’s mouth at least once a week to ensure the prompt removal of these teeth. Dental radiographs are absolutely critical to the proper performance of deciduous extractions, because there is often some degree of resorption of the deciduous root. The extraction of deciduous teeth can be very difficult due to the considerable length and thin walls of the deciduous tooth. (Figure 4) Resorption of the retained deciduous tooth can also
compromise the extraction. (Figure 5) Dental x-rays provide this information which allows the practitioner to remove the tooth less invasively.

In some cases, the root may be completely resorbed, making the extraction simple. (Figure 6) However, if the veterinarian does not perform x-rays to find that the root is already gone, they may attempt to surgically remove it, causing unnecessary pain and trauma to the pet. Some veterinary dentists perform surgical extractions for deciduous canines; however, at SCVDS we generally perform a less invasive closed technique.

A retained root tip left behind after an extraction attempt may become infected, (Figure 7) or more commonly act as a foreign body and create significant inflammation. There are rarely any clinical signs associated with this, but the patient suffers regardless. Dental radiographs should be exposed following all extractions to confirm complete removal of the deciduous tooth.