

## **The Use of Dental Picks for Difficult Extractions**

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### **Take Home Message**

Teeth broken at or below the gum line, as well as fragments of reserve crown and tooth roots, can be extracted using long, custom-made, dental picks. The opposing arcade can be used to aid elevation of the periodontal ligament by compressing the pick into the periodontal space between the alveolar bone and the dental fragment.

### **Introduction**

Historically, teeth broken at or below gum line, as well as fragments of reserve crown and tooth roots, have been removed surgically, but surgery to remove diseased teeth should be a last resort. Surgery, with its prolonged recovery, expensive aftercare, and frequent complications, can, on occasion, be avoided with aggressive use of specialized dental picks.

### **Material and Methods**

Good sedation is required because a cooperative patient is essential. Detomidine HCl (0.02 mg/kg, IV) combined with butorphanol (0.01 mg/kg, IV) usually supplies sedation required for dental extraction. Detomidine can be re-administered at a dosage of 0.01 mg/kg as needed. The tooth to be extracted is desensitized using regional anesthesia.

Picks with long ends (i.e., 8, 10, 12cm long) that are specially beveled and angled for elevating tissue from the buccal, lingual, caudal, and rostral aspects of the tooth are used. These inexpensive, long dental picks are made of hard stainless steel, bent under high heat and beveled into different shapes and sizes.

The appropriately beveled and angled pick is inserted into the portion of the alveolar rim for which it was designed. After carefully positioning the pick, the opposing arcade is touched with the angle of the pick to stimulate jaw closure, which compresses the pick between the tooth and the alveolus. Tissue on the other surfaces of the tooth is elevated in a similar fashion, using the appropriate pick. Each surface is elevated several times. As the space created enlarges, wider, longer picks are inserted.

Elevating the diseased tooth is often a long and tedious process, but eventually the tooth is separated sufficiently on all sides so that movement can be detected. At this point, extraction of the dental fragment(s) is possible.

## Discussion

Commonly used, commercially available, dental picks lack sufficient variety in size and shape for many extractions. Using good quality (sharp and hardened steel), long picks, some practice and patience, broken teeth and root fragments can be removed without surgery.



**Figure 1:** Picks in a variety of angles, lengths, widths, bevels, and points are required for elevating dental attachments. Commercially available picks are pictured at the lower left for comparison.



**Figure 2.** The broad, flat points and long, gradual beveling help in severing the periodontal ligament. A commercially available pick, to the left of the ruler, is pictured for comparison.



**Figure 3.** Initial pick placement is shown using a skull with nondiseased teeth . The mouth is held open with a full-mouth speculum, and the pick is inserted between the mandibular crestal bone and the tooth to be extracted.



**Figure 4.** A normal maxillary tooth is used to demonstrate proper pick placement. The angle of the pick is then rotated onto the occlusal surface of the opposing arcade to stimulate the horse to close its mouth.

## **Reference**

Baker GJ, Easley J. *Equine Dentistry*. 2<sup>nd</sup> ed. London: Elsevier Saunders, 2005; 272.