

Tips from practicing dentists on using products to the best advantage

Product Category: OPERATING INSTRUMENTS & ACCESSORIES

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Practice location: Indianapolis, IN
Type of practice: Implant & Cosmetic Dentistry
Years in practice: 30
System/product to be described: Periostomes, X-Otomes, & D-Lux Elevator Usage in the Esthetic Zone
Manufacturer: A. Titan
Company Website: www.atitan.com

Description of this product and its benefits to the dental patient:

Removing a tooth in the 'Esthetic Zone' is no longer a step that leads towards denture ridge preparation, but rather an intricate and delicate procedure that when done well preserves hard and soft tissue anatomy and critical tissue architecture that allows for restoration of a natural smile. To accomplish tooth removal that is atraumatic while preserving the alveolar architecture and tissue requires a different armamentarium than that of traditional exodontia instrumentation typically used. We have been historically taught to use a large curette to separate the sulcular tissue and then luxate the tooth to expand the alveolus and PDL by forcing an elevator between the adjacent tooth or alveolus and pry the tooth loose until the socket and tissue cuff is expanded to 'relinquish' the tooth. However, a truly atraumatic extraction involves finesse, not force.

Step-by-step description of how this product is used with a patient:

The first step in this delicate process is to separate the tooth root from the periodontal liga-



Figure 1: Caption 1: Periostome about to be inserted into the PDL space to 'incise' the ligament and separate root from socket



Figure 2: Large X-Otome 'elevator' being placed at the mesial palatal line angle with thumb pressure against the buccal plate as apical pressure is used to sublunate the root/tooth complex coronally.



Figure 3: X-Trac forceps 'deliver' the root/tooth complex after the xotomes achieve coronal displacement with ease. Minimal purchase on this sectioned palatal root is securely grasped with narrow 'ribbed' forcep beaks.

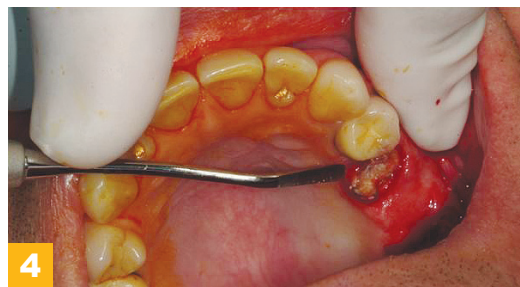


Figure 4: Completed surgical extraction in the esthetic zone preserving tissue anatomy.

ment. Critical in accomplishing this separation is use of a periostome or small X-Otomes. These instruments are designed to be used as 'reusable' knives that are slipped into the sulcus and driven apically while maintaining its location between the root surface and the tooth socket. Circumferential 'incisions' are made around the entire perimeter of the tooth. Think of the motion and action of a sewing machine needle as you work the instrument around the sulcus. It is important not to apply lateral pressure but always apical and pressing further

apically with each subsequent circumferential pass.

When this technique is used, elevation and removal of the tooth from the socket is often completed with either a larger X-Otomes or a D-Lux elevator. When used properly these instruments provide 'subluxation' or pressure to lift the conical root out of the socket. Preferentially placed on the palatal line angles of the tooth with thumb pressure placed against the facial of the root. This allows a sense of expansion and force being delivered apically to judge luxation pressure that is being applied to the root and avoid alveolar trauma. Care is needed to resist expansion or fracture of the often thin, maxillary alveolar facial plate.

A typical sequence involves:

- Circumferential 'incision' into the PDL with a periostome or small X-Otome.

- Several passes are made around the perimeter of the tooth, with each pass allowing the instrument to sink deeper along the root surface towards

the apex all the while loosening the grip of the PDL from the tooth.

- Gentle and judicious use of either a large X-Otomes or D-Lux elevator to sub-luxate the root and establish movement as apical pressure is applied.

- Depending upon movement of the tooth/root, it may be beneficial to reintroduce the Periostome or small X-Otomes and deepen the PDL incision.

- Apical pressure with either a large X-Otomes or D-Lux elevator is often all that is required to deliver conical anterior roots.

- Teeth also benefit from X-Trac root tip forceps when minimal purchase is available.