All state-of-the-art Endodontics
Preparation of the
The perfect solution for shaping an irreproducible access cavity.

Ultrasonic Canal Access Prep tips give us the ability to remove calcified dentin or pulp stones without sacrificing tooth structure unlike using a bur. The design of the tips also penetrates obstructions like fiber posts, amalgam cores and other canal obstructions that block canals coronally. To top it all, the hardy design and materials used to make the tips resist wear and tear much better than the traditional diamond coated tips.

The success of endodontic treatment involves shaping a perfect access cavity. The new EndoSuccess™ Canal Access Prep ultrasonic tip kit includes 3 micro-blade tips that are the perfect solution for locating and opening hidden or calcified canals and shaping and finishing the access cavity.

The high strength of these tips decreases the risk of fractures, the rate at which they wear and increases the precision during procedures such as:

- the shaping and widening of canal walls,
- the localization of canal orifices and MB2 canals in difficult cases,
- the fragmentation of calcifications and pulp stones.

SATELEC® uses a new manufacturing technique to create these tips. This process greatly enhances endodontic treatment allowing the practitioner to perform the best possible endodontic work and improve patient outcomes.
Finishing the side walls of the access cavity
Micro-blade mini-tip with non-active end to prevent the risk of perforating the pulp chamber floor. Effectively eliminates cement and dentinal residues and overhangs resulting in uniform canal walls.

MB2 and hidden canal localization
Micro-blade mini-tip with active end to locate hidden and calcified canals. Allows direct access to MB2 (2nd mesio-buccal canal) on 1st maxillary molars or other canals. Cleaning of the pulp chamber floor and opening of mesial canals.

Clinical case courtesy of Dr J-P. Mallet
Pre-operative view of tooth 36: CAP2 tip placed at the entrance of the canal then straightened on the external dentinal wall.

Post-operative view: Cleaning of the inter-canal isthmus for a direct access of the canal entrances.

Canal opening
Micro-blade mini-tip with active extremity specifically intended for:
- canal entrance localization and coronal third opening,
- removal of dentin tissues, calcifications (e.g. fragmentation of pulp stones), dentinal overhangs and filling materials,
- loosening fiber posts.

Due to its aggressive end, the CAP3 must be handled with precaution (binoculars or operating microscopes recommended) in order to avoid perforation of the pulp chamber floor.
Endodontic retreatment, an operation considered very complex, cannot be conceived without the contribution of technologies such as ultrasonics. The non-surgical endodontic retreatment kit perfectly meets these requirements. Each tip is dedicated to a clinical situation (Releasing of root canal anchoring, preparation of access cavities and canal entrances) and is perfectly adapted to its function. With or without irrigation or air flow (available with P MAX XS™), the precision and the efficiency of these instruments combine all the conditions needed for success in endodontic treatment.

Microstructure

The Titanium-Niobium (Ti-Nb) alloy presents itself under crystalline shape consisted in two phases: alpha (50%) and beta (50%).

The increase of the beta phase allows better stability and homogenous propagation of ultrasonic wave. The Ti-Nb alloy in the ET25 range of tips make them extremely flexible while remaining very strong to treat many different canal shapes and lengths with reduced risk of breakage.

Bibliography

Martin H, Cunningham WT (1985) Endosonics - the ultrasonic synergistic system of endodontics. Endod Dent Traumatol 1: 201-206
ium-Niobium with Satelec® ultrasonics
non-invasive Endodontic retreatment with confidence

Cavity access preparation
Stainless steel mini-tip, diamond coated. For the swift elimination of dentinal overhangs, calcifications or filling materials in the pulp chamber.

Exploration
Stainless steel mini-tip with ball head, diamond coated. Localization of calcified canals. Precise and safe preparation of the floor of the pulp chamber.

“Universal” retreatment tip

Titanium-Niobium (Ti-Nb) retreatment mini-tip
Most widely recommended mini-tip for retreatment in the middle and apical thirds. Can be pre-bent for treating curved canals. 3% taper.

Short Titanium-Niobium (Ti-Nb) retreatment mini-tip
Mini-tip designed for retreatment in the coronal third and isthmuses. Can be pre-bent for the treatment of curved canals. 4% taper.

Loosening
High-power stainless steel tip for loosening posts and crowns. Shaped for better ultrasonic efficiency on posterior teeth.
This new concept for micro-apical surgery, called 3-6-9, is exclusive to Satelec® and follows the current trend towards minimally-invasive surgical techniques. The kit consists of five instruments all designed to address different anatomical configurations. Together with a new diamond coating that enhances the instruments’ efficacy, these tips not only allow for more precise and better controlled retro endodontic treatment, but also conserve more bone and dental tissues. The root canal is preserved, and the infection is treated at its origin.

These instruments are recommended for use by Endodontists or dental professionals trained in the use of operating microscopes.

Clinical case courtesy of Dr B. Khayat

Pre-operative view

AS3D tip in use

AS6D tip in use

Pre-operative view of AS9D tip in use

Post-operative view

Bibliography

Khayat B., Michonneau J.C., Chirurgie endodontique ou endodontie chirurgicale. Inform Dent (Paris) 2006;88(26):1523

Code Nb. F00069
(contains 1 autoclave tips support
+ 5 tips AS3D, AS6D, AS9D, ASLD and ASRD
+ 1 universal wrench)
step for Apical Surgery

Canal preparation of anterior teeth
1\textsuperscript{st} sequence
Working length = 3 mm
Universal apical surgery tip - first instrument of the sequence.

Canal preparation of anterior teeth
2\textsuperscript{nd} sequence
Working length = 6 mm
Second instrument of the sequence.

Canal preparation of anterior teeth
3\textsuperscript{rd} sequence
Working length = 9 mm
Complicated cases - allows the preparation of the root canal up to the coronal third.

Canal preparation of posterior teeth
Left Side
Working length = 3 mm
Left oriented tip recommended for premolars and molars.

Canal preparation of posterior teeth
Right side
Working length = 3 mm
Right oriented tip recommended for premolars and molars.

X-rays courtesy of Dr B. Khayat

Pre-operative X-ray  Post-operative X-ray  X-ray showing healing after one year
Endo
the confident way

The current trend in surgical techniques is to offer minimally, or even non-invasive protocols. By using an operating microscope together with high-tech micro-instruments, it is now possible to treat the entire root canal.

Choose
the leader

EndoSuccess™ Retreatment is a kit of ultrasonic tips for a complete non-surgical Endodontic retreatment protocol. The range features the “ET25” series of Titanium-Niobium (Ti-Nb) instruments. This alloy, exclusive to Satelec®, favors the transmission of ultrasound and despite the fine shape, is particularly resistant to breakage but is flexible enough to access curved canals.

The micro-blade EndoSuccess™ Canal Access Prep tips are used on initial endodontic treatment or retreatment. These new tips are an ideal solution for a perfect access cavity preparation while limiting the quantity of dental tissues eliminated.

A giant step for Apical Surgery

The unique 3-6-9 protocol for micro-apical surgery as well as the new diamond coating of the five instruments in the EndoSuccess™ Apical Surgery kit make the treatment more precise and better controlled. They also help conserve more bone and dental tissues. The root is preserved and the infection is treated at its origin in the canal system. We can now expect to achieve the same success with apical surgery, as with non-surgical Endodontics.
The longer ultrasonic micro-tips, AS6D and AS9D, allow preparation up to 10 mm of the canal system. Diamond coating is present only on the instrument tip in order not to over prepare the canal. The protocol of micro-endodontic surgery henceforth follows that of conventional endodontics. Canal preparation through an apical approach allows the placement of a sealed obturation. We no longer refer to endodontic surgery, but rather to surgical endodontics.

The use of ultrasonics has now gained such importance in endodontic treatment that I personally believe it to be one of the most interesting innovations introduced into modern Endodontics. Endodontics is the specialization in which ultrasound has enabled the most visible progress to be made, and some stages of endodontic technique have been modified. Above all, when the use of ultrasonic tips is associated with an operative microscope; state-of-the art Endodontics cannot today neglect these two fundamental instruments.
## Power settings

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