

# TECHNIQUE

## Two New and Highly Effective Injection Techniques

By Eugene R. Casagrande, DDS, Director of International & Professional Relations, Milestone Scientific

The STA Injection System (Figures 1 and 2) is not only great for single-tooth anesthesia, but it is also very useful to administer multiple-tooth injections such as the P-ASA. The P-ASA is a single-site palatal injection that can anesthetize 6 anterior teeth and the related labial and palatal gingival tissues (Figure 3) without causing collateral numbness to patients' upper lip and face. They really appreciate this! This easy-to-administer injection can take the place of at least 4 buccal infiltrations and a palatal injection, and it is valuable for cosmetic restorative dentistry procedures such as composites, veneers, and crowns because you can immediately assess the patient's smile line. The P-ASA is also useful for endodontic, periodontal, and implant procedures.

The P-ASA is a very comfortable injection for your patients due to the STA flow rate below the patient's pain threshold and the ability to easily control the needle.

### The STA Intraligamentary Injection Versus the PDL

There are major differences that should be considered between the traditional PDL injection delivered with the syringe or the Ligmaject and the STA-administered intraligamentary injection (STA-II).

1. The PDL is usually the injection of last resort, when the mandibular block fails. The STA-II should be considered the primary injection for any maxillary or mandibular tooth, and it can replace mandibular blocks and infiltrations, which cause collateral numbness to the patient's lip, face, and tongue.
2. When a traditional PDL injection is performed with a traditional syringe, a small amount of anesthetic is injected under excessive pressure, which produces a short duration of anesthesia. The STA-II delivers a larger volume of anesthetic under minimal pressure, resulting in longer duration (40 minutes).
3. The PDL injection is difficult to administer since the tissue in this area is quite dense, and the flow rate of the anesthetic depends on manual pressure (which will vary from person to person). The STA-II is easy to administer since you glide the bevel of the needle in the sulcus down the root of the tooth until resistance is met (Figure 4). The flow rate is computer-controlled, consistent, and below the patient's pain threshold. The dentist receives confirmation of a precise injection site as the STA System communicates back using lights and soft tones.
4. The PDL injection has been known to be painful on delivery and often results in tissue damage and bone resorption, resulting in postoperative discomfort. The STA-II is a comfortable injection, and clinical studies shows it causes no tissue damage or bone resorption and little or no post-op discomfort.
5. The STA, using Dynamic Pressure Sensing, allows you to know when you have arrived at the correct site (the periodontal ligament space) for a successful intraligamentary injection; it also indicates if you have left the site and if the needle has been blocked by obstruction or pressure.

For more information, call Milestone Scientific at (800) 862-1125 or visit the Web site [stais4u.com](http://stais4u.com).

Figure 1

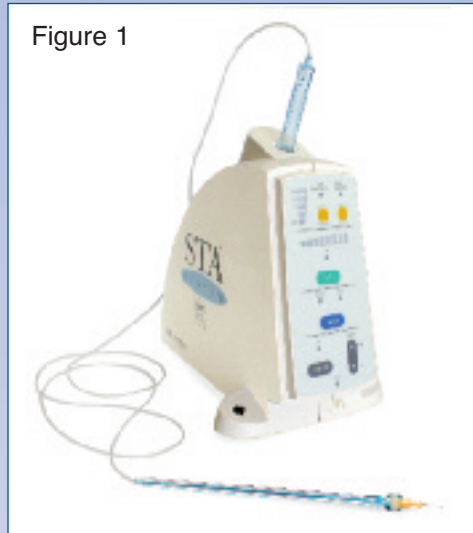


Figure 2

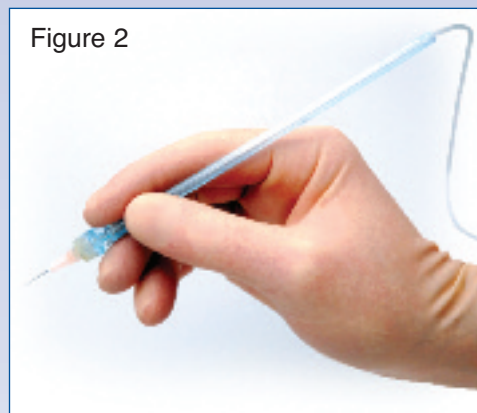


Figure 3

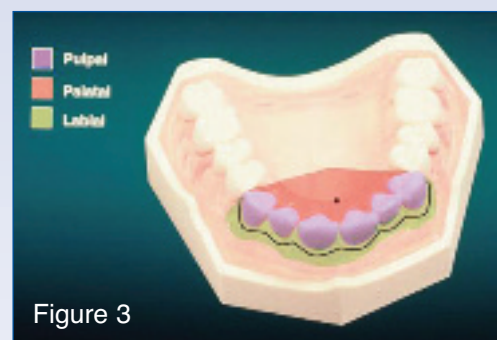


Figure 4

