

The Wand STA

How to perform the new Intraligamentary injection

The NEW Intraligamentary injection is an ideal injection for single tooth anaesthesia of teeth in either the maxillary or mandibular arch. This is an ideal injection to be used in the mandibular arch for primary anaesthesia of procedures of less than one hour.

The benefits of this injection include rapid onset, no collateral anaesthesia to the lips and face, and it is easy to administer. You now have the option to work on multiple quadrants in a single visit for all your patients. It's great for your patients who need to return to their normal routine quickly; great for kids and it's great for you.

To begin, verify that the System is set to the STA-Mode. We recommend using the Bonded 30 gauge ½" handpiece for this injection. You may choose to turn the aspiration button off as it is not necessary for this injection.

When performing the Intraligamentary injection on a mandibular molar we recommend that you inject in two sites for each molar, the Distal-lingual line angle and then the Mesial-Lingual line angle, as these teeth are multi-rooted. For maxillary Intraligamentary molar injections your first injection will be the Distal-Buccal line angle followed by the Mesial-Buccal line angle.

When performing an Intraligamentary injection on a single rooted lower anterior tooth it is only necessary to perform the injection at a single distal site on that tooth.

While holding the handpiece with a pen-like grasp, approach the tooth at about 45° with the bevel towards the tooth.

Place the needle passively in the gingival sulcus of the tooth to be anaesthetized.

Now, initiate the CRUISE rate, by holding your foot on the foot control pedal for 3 seconds until you hear the instrument announce "Cruise". Once you hear the word "CRUISE" spoken, you may remove your foot from the foot pedal and the instrument will continue the flow of anaesthetic until you depress and release the foot control again. Hug the root of the tooth as you gently move the needle down into the sulcus until you reach resistance.

We would like to emphasize that it is important to gently and slowly advance the needle within the sulcus, as if it is a periodontal probe until resistance is met. Maintain the 45° angle while holding the needle in place WITHOUT applying excessive pressure. Make sure to use a finger-rest to carefully control and stabilize all needle movements.

You need to keep the needle in a steady position for 10-15 seconds for the pressure sensing technology to analyze your needle position.

As the System begins sensing pressure, you will see the sequential illumination of LED lights on the front of the unit. If you do not see this occurring after 20-30 seconds you have not identified proper needle placement. You should reposition the needle and again wait 10-15 seconds for the detection to begin.

In addition to the lights, you will hear the corresponding audible feedback. The System will provide a series of 3 ascending beeps indicating that the system is detecting the pressure at the needle tip. After 20-30 seconds with the needle located in the correct location you will hear the System announce "PDL-

PDL". This will be followed by a series of 2 longer "beeps': indicating that the proper pressure is being maintained and that you have identified the correct needle position for that injection.

Special note: Owing to anatomic variations you may achieve success while in the high yellow zone.

The high yellow LED indicates that you have a high probability of being in the optimal needle position to perform the Intraligamentary in jection. It is necessary that the high yellow LED consistently be maintained throughout the injection process to achieve success. Note – you will not hear the audible spoken words "PDL." in the yellow zone. The green LED indicates the highest probability that the correct needle position has been achieved and therefore you will now hear the spoken "PDL" announcement. A successful Intraligamentary injection can occur in either the high yellow or green LED zone as both are indicative of the PDL tissue.

Drug Selection: The clinician should use his/her own judgement as to the anesthetic drug selection and volumes used. The following information serves only as a guideline and clinicians are advised to refer to the appropriate drug manufacturers for specific recommendations. In addition, clinicians are advised to review the current dental literature and dental textbooks for guidance on recommended dosages and drug recommendations.

When using 2% Xylocaine Hydrochloride 1:100,000 Epinephrine or other local anesthetics formulated with a 2% concentration the following recommendations are made.

- A maximum drug volume of 0.9ml is recommended for single rooted teeth (at the distal site):
- A maximum drug volume of 1.8ml is recommended for multi-rooted teeth (distal and mesial 0.9ml each).
- The use of 2% local anaesthetics containing a vasoconstrictor concentration of 1:50,000 parts is not recommended for administration of an intraligamentary or palatal injection.

When using 4% Articaine Hydrochloride or other local anesthetics formulated with a 4% concentration the following recommendations are made. NOTE: it is recommended when using 4% Articaine Hydrochloride that only a 1:200,000 vasoconstrictor concentration be used:

- A maximum drug volume of 0.45ml is recommended for single rooted teeth (at the distal site).
- A maximum drug volume of 0.9m1 is recommended for multi-rooted teeth (distal and mesial 0.45ml each).
- The use of 4% local anaesthetics containing a vasoconstrictor concentration of an intraligamentary palatal injection.

If you need help administering this injection call Jayne on: 07855 239695