

# How to Use the LeEject Dental Safety System

## Introduction

The LeEject needle and syringe system is a dental device designed to prevent needle stick injuries because recapping and unscrewing of the used needles are not necessary. This new technology requires a learning process, so please become familiarized with the LeEject system prior to use on patients. **Go to [www.LeEject.com](http://www.LeEject.com) and study the Training Video.** Practice insertion and removal of cartridge and needles on a dental tray or on a flat, broad, and well-lit surface.

## Indications for Use

The LeEject Syringe and needles are indicated for the use of local anesthetic cartridge for infiltration and nerve block anesthesia administered prior to, or in conjunction with dental procedures.

## Warnings

1. AVOID using extreme physical pressure or force which may cause the needle to break.
2. DO NOT pick up dropped needles with hands. In case of an inadvertent drop of a needle, use college pliers or hemostat to pick up the dropped needle.

## Precautions

1. LeEject syringes can only be used with LeEject needles.
2. A sharps container with a large opening should be readily available in the treatment areas. Sharps-A-Gator by Covidien (Model 31144010) or Wallmate by BD are recommended because they offer unhindered access to their openings.
3. Discard the used needle after injections are completed. If more injection is needed later, then use a new needle.
4. Syringes should be replaced if parts are missing or damaged.

## Cleaning/Sterilization Instructions

1. Syringes are sold non-sterile, and must be sterilized prior to use.
2. The syringe should be thoroughly cleaned to remove all traces of blood, saliva, and anesthetic solutions at the end of each procedure.
3. After cleaning, sterilize the syringe in an autoclave according to an approved National/International Standard.
4. Autoclave temperatures should not exceed 200°C (392°F).
5. Store syringe in a dry sterile area.

## User Assistance Information

Contact ATC, Inc. by email at [info@LeEject.com](mailto:info@LeEject.com) or call us at +1. 201. 944. 8400.

## Operating Instructions

### Loading Instructions

1. While the plunger is pulled, place the anesthetic cartridge into the syringe barrel.
2. Twist the protective cap and break the sterility seal on the needle, remove the shorter cap.
3. While the plunger is pulled and the syringe is pointed upward, place the needle into the cone receptacle of the syringe carefully so that the shorter needle pierces the center of the diaphragm of the cartridge.

**The LeEject system offers two types of aspiration: manual and self aspiration.**

### Manual Aspiration

4. Gently tap the thumb ring so that the harpoon would engage the rubber plunger of a cartridge. Aspirate before anesthetics is injected.

### Self Aspiration

5. Aspiration should be done manually; the self aspiration is a safety back-up system.

Self aspiration is created by a bump at the end of the needle which presses against the diaphragm of the anesthetic cartridge. Aspiration occurs when the cartridge's rubber diaphragm springs back, creating a negative pressure in the cartridge.

Without tapping the thumb ring, inject first a few drops of local anesthetic, then stop pushing and pull back the thumb ring. Inspect the cartridge for the presence of blood.

Self aspiration is helpful but it has its own limitations.

**Warning: Self aspiration should not be used with local anesthetics containing epinephrine or other vasoconstrictors, or used on children under the age of 12 and weighing less than 100 lbs (45 kg).**

### Unloading Cartridge

*While removing the cartridge, the syringe should be kept flat. If the syringe is rotated, then the needle would fall out.*

6. Disengage the harpoon from the cartridge by pulling the plunger. Push the cartridge out through the small window underneath with your opposing index finger.
7. Pick up the cartridge with thumb and index finger.

### Inserting a Second Cartridge

8. Remove the anesthetic cartridge. While pointing the syringe upward and pulling on the plunger, place the new anesthetic cartridge into the syringe barrel carefully so that the shorter needle pierces the center of the diaphragm of the cartridge.

### Disposal of Needle

9. Remove the cartridge first as described in Steps 6 and 7.
10. Position the syringe above a sharps container, and rotate the syringe 180 degrees so that the needle falls off the syringe directly into the sharps container.
11. If the needle falls off and not into the sharps container, use college pliers or hemostat to hold and place the needle into the sharps container. The sharps container should be readily available and located in plain sight where inadvertently dropped needles can be visualized and disposed of immediately.

**LeEject<sup>®</sup> Syringe & Needle**  
Dental Safety Device

Distributor Manufacturer:

**Advanced Technology & Capital, Inc.**

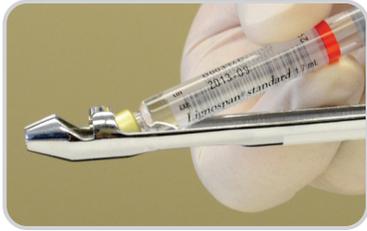
5 Sylvan Avenue, Englewood Cliffs, NJ 07632, USA | Tel: +1. 201. 944. 8400 | Fax: +1. 201. 302. 9857 | [www.LeEject.com](http://www.LeEject.com)

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Go to [www.LeEject.com](http://www.LeEject.com) and watch the Training Video before you start.

## Loading Instructions



While the plunger is pulled, place the anesthetic cartridge into the syringe barrel.



Remove the shorter cap.

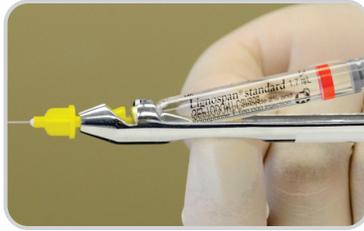


While the plunger is pulled and the syringe is pointed upward, place the needle into cone receptacle of the syringe carefully so that the short needle pierces the center of the diaphragm of the cartridge.



Remove the long protective cap prior to injection.

## Removing the Cartridge



Disengage the harpoon from the cartridge by pulling the thumb ring. Push the cartridge out through the small window underneath. While keeping the syringe flat, pick up the cartridge with thumb and index finger.

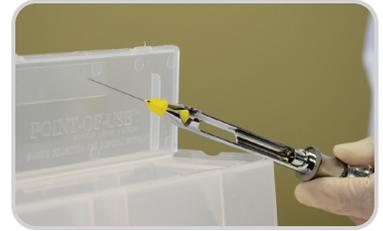
## Inserting Second Cartridge



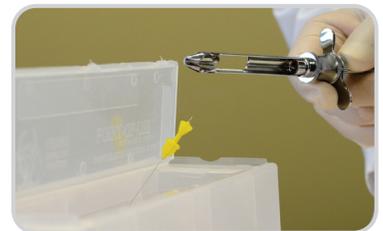
Remove the anesthetic cartridge. While pointing the syringe upward and pulling on the plunger, place the new anesthetic cartridge into the syringe barrel carefully so that the shorter needle pierces the center of the diaphragm of the cartridge.

**Warning: Self aspiration should not be used with local anesthetics containing epinephrine or other vasoconstrictors, or used on children under the age of 12 and weighing less than 100 lbs (45 kg).**

## Disposal of Needle



Remove the anesthetic cartridge. Position the syringe above a sharps container.



Then tilt the syringe upward and rotate the syringe 180 degrees so that the needle falls off the syringe directly into the sharps container.



If the needle falls off and not into the sharps container, use college pliers or hemostat to hold and place the needle into the sharps container. The sharps container should be readily available and located in plain sight where inadvertently dropped needles can be visualized and disposed of immediately.

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