Blunt-tip cannulas represent a paradigm shift in the injection techniques used by aesthetic physicians who perform injectable filler treatments. Some of these blunt-tip cannulas also have varying flexibility, and their use can result in significantly less bruising as well as less painful procedures compared to traditional hypodermic needles.

"Blunt-tip cannulas appear to be more than just a fad, but instead, they are a natural evolution in the way aesthetic physicians perform filler treatments," says Joe Niamtu III, D.M.D., F.A.A.C.S., a cosmetic facial surgeon in Richmond, Va.

Traditional needles used in filler treatments are associated with pain, tissue damage, bruising, vessel laceration, multiple punctures and more. Blunt-tip cannulas can achieve the same results as traditional needles, but without many of the associated negative aspects.
“One of the goals for all cosmetic surgeons is to improve and refine the process of delivering injectable fillers in the tissue. Though traditional needles are the current standard technique used in filler treatments, blunt-tip cannulas can help to reduce downtime through less bruising and are potentially a safer technique, as there is a decreased risk of vessel damage, which could have catastrophic sequelae,” Dr. Niamtu says.

**LIP VOLUMIZING** When volumizing the lips, Dr. Niamtu says he often uses a 20-gauge, 4 cm or 5 cm long, nonflexible microinjection cannula (Tulip Medical), which is traditionally used for the microinjection of fat. Using the 5 cm cannula, one can inject the entire lip or nasolabial fold using a single puncture site. The technique is not only minimally traumatic, but fillers are easier to inject and there is less pain, edema and bruising resulting from the injection.

“Instead of using a sharp needle and sticking it multiple times in the lip, I make a small puncture at the corner of the lip, then feed the cannula through the entire length of the lip and inject the filler as I withdraw the cannula. The cannula allows me to cut the treatment time in half, and because the tip is blunt, the risk of intravascular injection is significantly reduced. This is my technique of choice when volumizing the lip,” Dr. Niamtu says.

**OTHER BLUNT-TIP OPTIONS** Other blunt-tip cannulas have been developed consisting of different sizes and varying degrees of flexibility. DermaSculpt cannulas (CosmoFrance), approved by the Food and Drug Administration (FDA) are flexible, blunt-tip, disposable microcannulas that can be used for all facial filler indications in the face. The cannulas are offered in three sizes — 30-gauge 1 inch long cannula, a 27-gauge 1.5 inch long cannula and a 25-gauge 1.5 inch long cannula. Depending on the size and diameter used, these cannulas can be used for superficial to deeper corrections and can accommodate different fillers of varying viscosities.

“One main advantage of using a flexible long cannula is that the surgeon can easily cover a much larger surface area of injection from a single point of entry, using the fanning technique,” says Raphael Niamtu III, D.M.D., F.A.A.C.S.

A patient is treated with an 18-gauge needle (left) used to make a small entrance puncture to accommodate the cannula. The cannula positioned in the mid-lip (right). The filler is injected while retracting the cannula from the lip. (Photos credit: Joe Dewandre, M.D.)

A 24-year-old female patient before (left) receiving lip augmentation with Dermyal 32HR (24 mg/mL) cross-linked HA filler using a DermaSculpt 27G blunt-tip cannula, and 15 days after the injection (right). (Photos credit: Luc Dewandre, M.D.)

A 26-year-old male patient before (left) receiving tear trough correction with Dermyal 18 (18 mg/mL) cross-linked HA filler using a DermaSculpt 27G blunt-tip cannula, and seven days after the injection (right). (Photos credit: Luc Dewandre, M.D.)

A 41-year-old female patient before (left) receiving tear trough correction with Dermyal 18 (18 mg/mL) cross-linked HA filler using a DermaSculpt 27G blunt-tip cannula, and eight days after injection (right). (Photos credit: Luc Dewandre, M.D.)

A 26-year-old female patient before (left) receiving tear trough correction with Dermyal 18 (18 mg/mL) cross-linked HA filler using a DermaSculpt 27G blunt-tip cannula, and 10 minutes after the injection (right). (Photos credit: Luc Dewandre, M.D.)

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Dr. Weinkle says she will often use flexible cannulas when injecting more robust viscous fillers such as calcium hydroxylapatite. This filler is ideal for soft augmentation filling of the prejowl sulcus area and in particular the marionette lines, but this area is also associated with a lot of bruising. According to Dr. Weinkle, the reduced inflammation could potentially increase the longevity of the filler and its aesthetic effect.

“Flexible blunt-tip cannulas can prove to be a real benefit here. There are fewer percutaneous sticks because a flexible cannula has a greater reach, I can place the filler throughout the target area using a single puncture,” Dr. Weinkle says.

**LEARNING CURVE** There is a learning curve, and the downside to flexible cannulas is that it can be challenging to penetrate the surface of the skin and direct and guide the cannula to the target zone. Here, a more rigid cannula has the advantage of easier and quicker filler placement while still being precise. The physician has to become comfortable with a longer cannula and may need to learn how to finesse it through the tissue, which is very different from slicing through the tissue with a sharp needle.

A patient is treated with an 18-gauge needle (left) used to make a small entrance puncture to accommodate the cannula. The cannula positioned in the mid-lip (right). The filler is injected while retracting the cannula from the lip. (Photos credit: Joe Dewandre, M.D.)

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Dr. Weinkle, chief executive officer of CosmoFrance, Miami Beach, Fla.

According to Mr. Dewandre, these blunt-tip cannulas allow for a practically painless procedure (not requiring local anesthesia), and because the technique is atraumatic, there is minimal to no bleeding or bruising at the target site.

“Blunt-tip cannulas are revolutionary in that they cause much less bruising, which directly translates to less or no downtime. My aesthetic patients often desire a ‘quick fix,’ and novel blunt-tip cannulas can help me perform atraumatic treatments with the least downtime possible, more so than with traditional needles,” says Susan Weinkle, M.D., affiliate clinical professor at the University of South Florida, Tampa.

As the risk for blood vessel rupture is reduced, the treated area will typically have less ecchymosis, less bruising and less local inflammation. According to Dr. Weinkle, the reduced inflammation could potentially increase the longevity of the filler and its aesthetic effect.

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According to Dr. Niamtu, blunt-tip cannulas can be very useful for deep deposition of soft-tissue fillers or for volumization of the lips. Because of their larger size, however, they are less ideal for intradermal injections, such as the treatment of fine lines or for outlining the lips. ☛

**Disclosures:** Dr. Niamtu and Weinkle report no relevant financial interests.