

Fat Transfer Gun Used as a Precision Injection Device for Injectable Soft Tissue Fillers

Joseph Niamtu III, DDS*

Injectable filler substances have long been a viable alternative for facial rejuvenation

Fascian (Fascia Biosystems, Beverly Hills, CA) is a preserved human particulate fascia lata preparation. Preserved fascia lata has been used successfully for over 70 years in multiple specialty applications.¹⁻³ Fascian has been used successfully to augment lips,³ nasolabial folds, acne and traumatic scarring,^{4,5} and various other facial lines, folds, and defects. In a clinical trial, Burres⁶ followed 81 subjects for 6 to 9 months after implantation without evidence of infection, allergic reaction, or acute rejection. Soft tissue augmentation was evident 3 to 4 months after grafting in most cases.⁶

Fascian is packaged in a dehydrated form packed in a 3-mL syringe and is available in 0.25, 0.5, 1.0, or 2.0 particle size. The preparation is reconstituted with saline or local anesthetic solution for a 3-mL injectable suspension.

Fascian is traditionally injected with finger pressure using the standard syringe. Due to the particle size and viscosity of the prepared suspension, injection through smaller needles may be difficult and larger needles can cause increased bleeding and hematoma formation. In addition, the needle may clog, and continued pressure on a clogged needle may cause a sudden release of the material with unpredictable tissue overflow or clumping.

A more precise injection may be achieved by using a fat transfer syringe assist device (Byron Biomedical, Tucson, AZ). This device is designed to assist in injecting transplanted fat. The pistol grip design allows

a more ergonomic injection with less finger pressure compared with standard syringe injection. In addition, the graduated trigger mechanism allows for precise controlled microinjection with each advancing click of the trigger. Finally, because more injection pressure is generated, a smaller injection needle may be used. Use of a smaller needle produces less tissue damage and less chance of hematoma from vascular injury.

The Fascian is mixed in its own syringe by drawing up sterile water or local anesthetic solution through an 18-gauge needle. The needle is then removed, and a disposable transfer device that is supplied with the Fascian is attached between the reconstituted syringe and the injection gun (Fig 1A). Pulling back the plunger of the injection device draws the Fascian out of the original syringe into the injection device, and it is ready to inject (Fig 1B). The suspension may be easily injected through a 21-gauge needle.

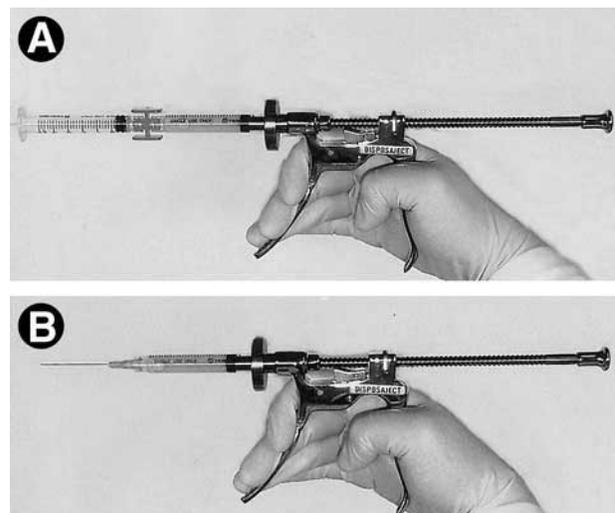


FIGURE 1. A, The included disposable transfer device is connected between the syringe in the fat injection gun and the syringe of reconstituted Fascian. B, The plunger of the fat injection device is then retracted, filling this syringe with the reconstituted Fascian, and a 21-gauge needle is attached for precision injection.

*Private Practice, Oral/Maxillofacial and Cosmetic Facial Surgery, Richmond, VA.

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Address correspondence and reprint requests to Dr Niamtu: 10230 Cherokee Rd, Richmond, VA 23235; e-mail: niamtu@niamtu.com

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