



A Simple Technique to Measure the Volume of Removed Buccal Fat

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Buccal fat removal is a cosmetic procedure performed to reduce cheek “chubbiness” and create a more sculpted appearance of the face (Figure 1). It is commonly performed transorally via an incision in the buccal mucosa, followed by dissection into the buccal cheek fat and excising an appropriate amount of fat (Figure 2),^{1,2} or transposing the fat to volumize other craniofacial regions.³ One ultrasonographic study estimated the volume of buccal fat per cheek to be 11.67 mL and reported that the average amount of fat removed was 2.74 mL.⁴ Although the procedure is relatively simple, a challenge surgeons face is estimating the amount of fat removed and ensuring that equal amounts of fat are removed from both cheeks. Failure to do so may lead to facial asymmetry. To solve this issue, we describe a simple technique utilizing a syringe and needle to estimate the volume of fat removed intraoperatively. This method also allows for documentation of the volume of fat excised in the operative notes, which is necessary from a medicolegal point of view particularly in cosmetic surgery, and can help with pre- and postoperative counselling of patients.

The plunger of a 5-mL Luer lock syringe is removed and a 25-gauge fine needle is screwed onto the Luer lock end. Excised fat from one cheek is inserted into the syringe through the plunger end. The plunger is reinserted, taking care to minimize air trapping between the fat and the plunger. The fat is pushed down the syringe

to the needle end by the plunger. The needle allows air expulsion but prevents fat extrusion as the fat occludes the fine lumen of the needle. The volume of fat is determined by reading the measurements on the syringe, in milliliters (Figure 3). This is repeated for the fat excised from the contralateral side and the volumes are compared. If the volumes of fat excised are not identical, or inadequate fat is excised, more fat can be excised until equal, or adequate, volumes of fat are excised. A video of the technique is available online as Supplementary Material at www.aestheticsurgeryjournal.com.

We have utilized this technique between January 2017 and October 2019 in a total of 92 procedures of bilateral buccal fat removal in 76 females and 16 males (age range, 18–44 years; mean age, 25.4 years). The average amount of fat removed per cheek is 2.6 mL (range, 1.9–3.6 mL). This is in line with what other surgeons have reported.¹ We have found that this amount of excised fat is sufficient to create a clinically apparent reduction in cheek “chubbiness.”

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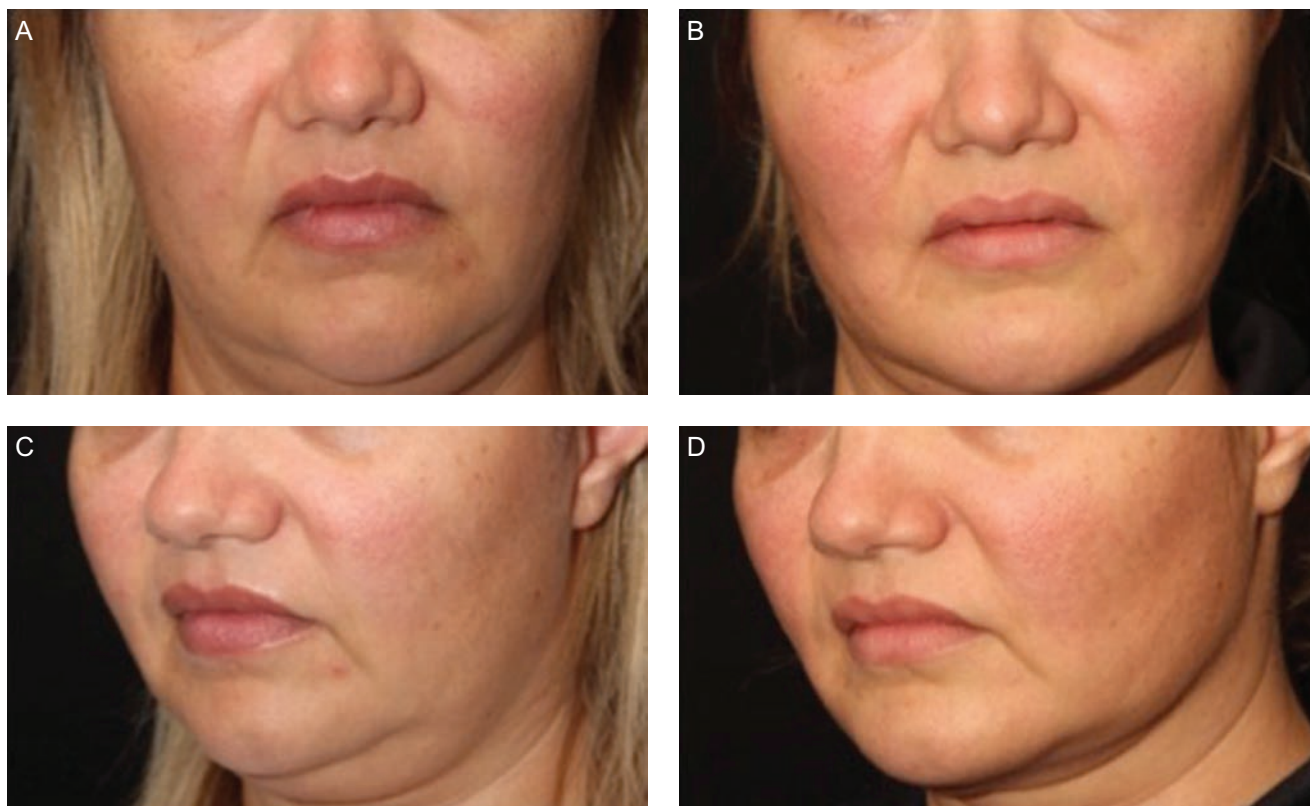
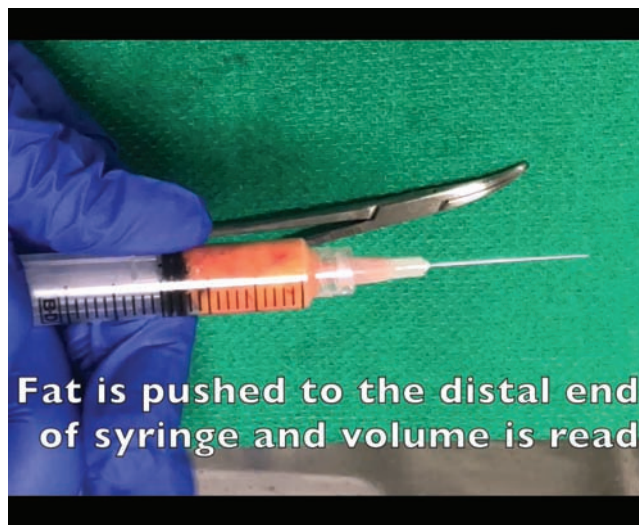


Figure 1. (A, C) Preoperative and (B, D) 1-year postoperative photographs of a 40-year-old woman who underwent bilateral buccal fat excision. Submental liposuction was also performed in this patient.



Figure 2. Intraoperative photograph of left-sided buccal fat excision in a 21-year-old woman.



Video. Watch now at <http://academic.oup.com/asj/article-lookup/doi/10.1093/asj/sjaa068>

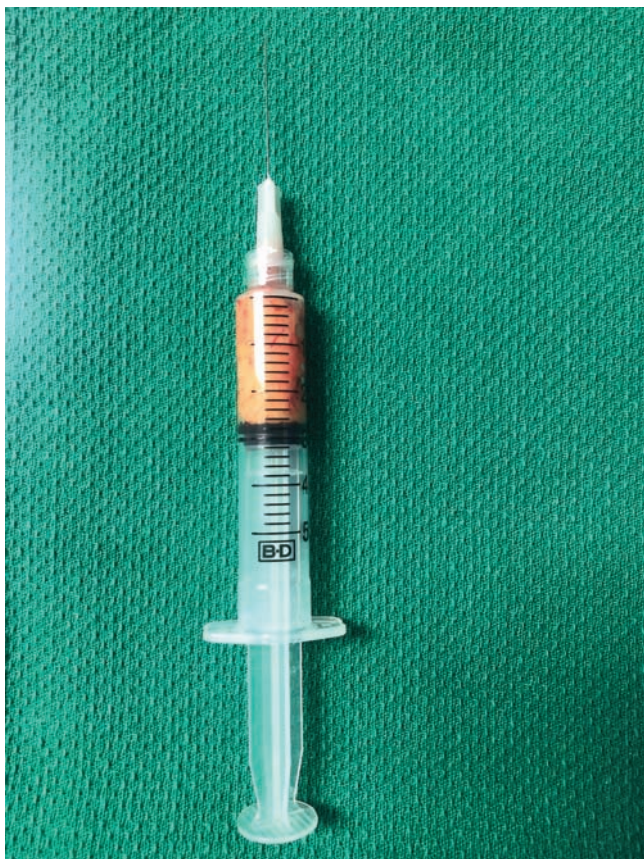


Figure 3. Excised buccal fat in a 5-mL syringe. The volume of fat is measured by reading off the graduations on the syringe.

In conclusion, we have found this method of volumetric measurement of fat to be very useful in our practice and we believe it will be helpful to other surgeons as well.

Supplementary Material

This article contains supplementary material located online at www.aestheticsurgeryjournal.com.

Disclosures

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