

The 5-Step Filler Hand Rejuvenation: Filling with Hyaluronic Acid

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Abstract: Many patients are pursuing simultaneous facial and hand rejuvenation with the latter receiving increased interest in recent years. Various materials have been purported to rejuvenate the hands including fat, calcium hydroxyapatite, and hyaluronic fillers. Despite the seemingly ubiquitous use of fillers, the Food and Drug Administration has approved only a select number for hand rejuvenation. This year, Restylane Lyft (Galderma, Texas) became the first hyaluronic acid filler to garner Food and Drug Administration approval for hand rejuvenation. The purpose of this video plus article was to demonstrate the technical nuances in administering hyaluronic filler in a safe and effective manner as it relates to hand rejuvenation. (*Plast Reconstr Surg Glob Open* 2019;7:e2073; doi: 10.1097/GOX.0000000000002073; Published online 14 January 2019.)

INTRODUCTION

Aging hands are a normal part of the aging process characterized by wrinkles, hollowing of the dorsal web spaces, and prominence of veins and extensor tendons.^{1,2} Atrophy of the intrinsic muscles of the hand and subcutaneous fat along accompanied by the laxity of the skin allow the underlying tendons and veins to become more prominent producing stigmata of aging in the hands (Fig. 1). Patients often seek hand rejuvenation to restore the appearance of a smooth, youthful hand. Hand rejuvenation has been described through the use of fat,²⁻⁵ fillers,^{2,6-8} skin excision,^{2,9} resurfacing,^{2,10} sclerotherapy,^{2,11} and a combination approach.^{2,12,13} Recently, the Food and Drug Administration has approved Restylane Lyft as the first hyaluronic filler for hand rejuvenation. Restylane Lyft restores volume to the dorsal hand improving the contour and fullness of the hand (Fig. 2). This article demonstrates our technique for clinicians employing Restylane Lyft for hand rejuvenation to provide patients safe and consistent results to address aging hands.

It is critical for clinicians to understand the characteristic of the aging hand and expertise with hand anatomy. This combination will assist in circumventing inadvertent injury to dorsal veins, extensor tendons, or sensory nerves. Bidic et al.² described the anatomy of the hand in distinct

layers transitioning from superficial to deep: skin, dorsal superficial lamina, dorsal superficial fascia, dorsal intermediate lamina, dorsal intermediate fascia, dorsal deep lamina, and dorsal deep fascia.¹⁴ The dorsal superficial lamina is a fatty layer deep to the skin, which lacks sensory nerves and major veins making it a desirable plane for injections.^{2,14}

TECHNIQUE

The Five-Step Filler Hand Rejuvenation (see video, **Supplemental Digital Content 1**, which displays the 5 steps used to inject Restylane Lyft to rejuvenate the hands safely. This video is available in the “Related Videos” of the Full-Text article on PRSGlobalOpen.com or at <http://links.lww.com/PRSGO/A939>).

Step 1

We employ liberal use of topical lidocaine 2.5% and prilocaine 2.5% to the dorsal aspect of the hands. We wait 20 minutes to allow the topical anesthetic to work.

Step 2

Both hands are prepped with Chloraprep™ (70% isopropyl alcohol/3.15% chlorhexidine gluconate) to cleanse the hands.

Step 3

The 4 dorsal webspaces are injected with small aliquots of Restylane Lyft (approximately 0.5 cc/web-space).

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Fig. 1. Preinjection of hands with loss of volume and prominence of dorsal veins and extensor tendons.



Fig. 2. Postinjection of hands at 24 hours restoring volume and eliminating the prominence of dorsal veins and extensor tendons.

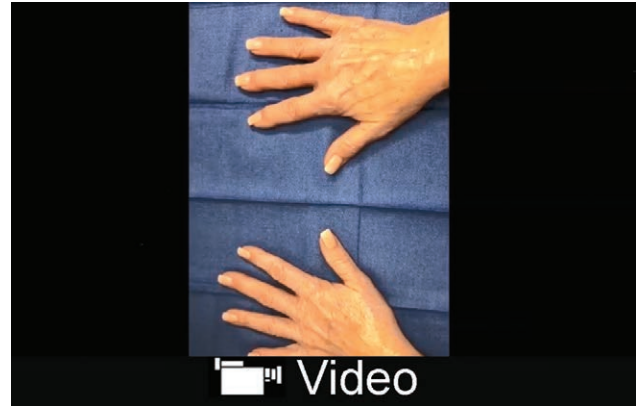
The injection is performed by tenting the skin and injecting the filler perpendicular to the skin taking great care to avoid dorsal veins and extensor tendon. This is facilitated by ensuring the injections are in the dorsal superficial and dorsal intermediate layer avoiding the dorsal deep layer.

Step 4

The aliquots are massaged around the webspace using ultrasound gel. Each time the hand should be evaluated to circumvent overfilling of the material causing contour irregularity

Step 5

Both hands are assessed critically to ensure appropriate rejuvenation and youthful harmony without compromise of hand function. Any touch-ups with filler can be performed at this time followed by massaging with the gel.



Video Graphic 1. See video, Supplemental Digital Content 1, which displays the 5 steps used to inject Restylane Lyft to rejuvenate the hands safely. This video is available in the "Related Videos" of the Full-Text article on PRSGlobalOpen.com or at <http://links.lww.com/PRSGO/A939>.

DISCUSSION

Patients are seeking hand rejuvenation to complement facial youthfulness. Many are seeking to eradicate the stigmata of aged hands such as contour irregularity, prominent veins, and extensor visibility. Fillers such as Restylane Lyft help accomplish this when administered by a skilled and experienced clinician who comprehends the complex hand anatomy. In general, each hand requires approximately 2 cc of Restylane Lyft with results lasting approximately 6 months. Admittedly, these results vary from patient to patient.

As with injecting fillers in the face, it is paramount that the injector possesses a profound understanding of anatomy of the hand. Numerous nerves, tendons, and vascular structures exist in the hand that can be inadvertently damaged when injecting fillers causing devastating sequelae. The technique illustrated in this article facilitates remaining in the dorsal superficial and dorsal intermediate layers to diminish the chances of injuries to the aforementioned structures. Furthermore, the use of small aliquots of fillers and continuous reassessment assists in overfilling the hand compartments.

Although the authors acknowledge that Frank et al.¹⁴ supports the proximal-to-distal fanning technique, we have found that tenting the skin and injecting hyaluronic filler enables us to remain superficial avoiding the deeper layers. The skin is tented up so that the dorsal superficial lamina space may be reliably entered.¹⁵ The technique of small aliquots over a large surface-area with a strong understanding of the vasculature favors the use of a needle rather than a cannula in our experience.

As hand rejuvenation continues to grow, it is imperative that the injector has a sound grasp of what fillers are Food and Drug Administration approved and the anatomy of the complex hand to deliver them to patients in a safe and successful manner.

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