

Optimizing Facial Aesthetics: Sequential Application of Botulinum Toxin A and Dermal Fillers for Enhanced Results

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In recent years, the field of aesthetic medicine has witnessed significant advancements, offering patients a plethora of options to rejuvenate their appearance. Among the most popular techniques are the administration of botulinum toxin A (BoNT-A) and dermal fillers. This article delves into the rationale and benefits of preparing the face with BoNT-A to weaken depressor muscles before proceeding with dermal filler injections. This sequential approach not only enhances patient outcomes but also improves procedural safety and patient satisfaction while reducing the chances of needing filler. This article reviews the anatomy, scientific evidence, and clinical implications supporting this innovative approach while shedding light on the potential for revolutionizing facial aesthetic procedures. With advanced applications of BoNT-A, it is possible to slim round faces, reduce jowling, create hollowing in some patients by obliterating masseters, slim the parotid, extend the chin, and more.

In the practice of facial aesthetics, botulinum toxin A (BoNT-A) and dermal fillers are cornerstone treatments aimed at addressing different signs of aging. BoNT-A effectively reduces dynamic wrinkles by inhibiting muscle contractions. Dermal fillers restore lost volume and sculpt facial contours. However, implementing sequential application of both products (i.e., with BoNT-A administered before dermal fillers) can optimize patient

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outcomes. This article explores the rationale behind this approach and its potential benefits.

The human face is characterized by a delicate balance between muscles that elevate and depress facial features. Overactivity of depressor muscles, such as the *corrugator supercilii* and *depressor anguli oris*, contribute to dynamic wrinkles and a tired appearance. Although muscles may weaken with age, their relative pull is greater on less resistant tissues and dermis and this can result in hyperdynamic expressions, creating caricatures that grimace rather than smile (Durand et al., 2016; Schlessinger et al., 2017; Shetty, 2018). Administering BoNT-A to depressor muscles temporarily weakens their activity and provides a smoother canvas upon which dermal fillers can be strategically placed.

Clinical investigations have provided compelling evidence for the sequential use of BoNT-A and dermal fillers. Scheduled pretreatment with BoNT-A can lead to reduced muscle contraction and size, thus enhancing the longevity and specific distribution of dermal fillers (Schlessinger et al., 2017).

Most medical aestheticians have consulted and/or treated an older woman patient of 60+ years who presents to the practice seeking treatments for the first time and wanting “everything.” Treating this patient requires more psychological consideration than most patients because as a new aesthetic patient, her knowledge base is likely quite limited (Lehrer, 2006). Given *carte blanche*, many injectors will try to create a masterpiece in a single setting. However, it is good practice to prepare the patient’s face for change by injecting the full face and neck with BoNT-A, as needed, and then reevaluating the effects of the BoNT-A after 2–4 weeks before advancing to dermal fillers or taking any other next steps. Many times, undergoing a full face treatment of BoNT-A will be enough to satisfy a patient’s subjective need to look and feel better (Sundaram et al., 2016).

When the patient returns for follow-up, the next treatment with dermal fillers will be much more satisfying for the injector to place and usually requires much less dermal filler to obtain satisfactory results. This is known as *prepping* the canvas. The patient also now understands the benefits of BoNT-A and is less likely to confuse it with

dermal fillers or other treatments. Likewise, the patient is usually more willing to proceed with other treatments when the results from BoNT-A are significant (Sundaram et al., 2016).

A sequential approach that begins with BoNT-A and is followed by dermal fillers offers several advantages. By weakening depressor muscles, BoNT-A minimizes muscle interference during filler placement, allowing for precise sculpting of facial contours. In addition, this approach reduces the risk for filler migration, leading to more predictable and harmonious results. Because of relaxed muscles, patients also experience less discomfort, which further enhances their overall satisfaction (Sundaram et al., 2016).

One of the primary concerns when combining different aesthetic procedures is patient safety. Studies have shown that a sequential approach involving BoNT-A, followed by dermal fillers, does not increase the patient's risk for adverse events (Swift et al., 2021). In fact, the muscle-relaxing effects of BoNT-A may contribute to a smoother injection process and reduce the risk for bruising or swelling. This is because the muscle contracting activity in the BoNT-A prepped area is reduced, which results in less movement and better integration of the placed dermal filler (Sundaram et al., 2016; Wongprasert et al., 2022).

The utilization of BoNT-A to weaken depressor muscles before administering dermal fillers represents a promising paradigm shift in facial aesthetics. This approach maximizes the benefits of both treatments, resulting in long-term enhanced patient outcomes, improved

procedural safety, and increased patient satisfaction. As the aesthetics field continues to evolve, further research and clinical trials are warranted to solidify the scientific basis of this approach and refine its techniques.

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