Fillers can be used effectively to shape the periocular area as a stand-alone treatment as well as in combination with botulinum toxins. This article offers tips for optimizing the use of fillers to achieve a natural, nonsurgical rejuvenation of the eye area.

**DIFFERENCES IN FORMULATIONS**

FDA-approved dermal fillers currently on the market differ in their makeup, concentration, and cross-linking, and have different rheological properties. Available are a variety of hyaluronic acid fillers as well as calcium hydroxyapatite, poly-L-lactic acid, and acrylic microspheres.

The most popular area to treat around the eyes is the tear trough. This is also the most challenging and unforgiving area to inject given the thinness of the skin and the likelihood of causing a Tyndall effect or showing lumps and bumps beneath the skin. For these reasons, hyaluronic acid fillers are useful, because they can be erased with hyaluronidase if needed.

My recommended technique for the tear trough is to bevel the needle down and advance it until the inferior orbital rim is reached. I lay a very conservative amount of hyaluronic acid filler down just on top of the periosteum and massage it into place with the pad of my forefinger. It is always best to be conservative in this area, and have the patient return for touch ups, rather than to over-inject. It’s also important to warn patients that because there are many blood vessels in this area, they will likely bruise. Telling them this before treatment will help avoid disappointment after the procedure.

A few periorbital areas benefit from a combination of fillers and botulinum toxins. Ideally, I treat these areas with the neurotoxin first to weaken the targeted muscle and then enhance the results with filler.

**BROW LIFT**

Nonsurgical brow lifting can be achieved via this combination. Botulinum toxin to the lateral brow can provide a “chemical brow lift” by weakening the depressive effects of the lateral orbicularis and providing 1-2mm of lift. Additionally, injecting a filler deep beneath the tail of the brow can elevate the brow even more, helping to open up the peri orbital area. This dermal filler, much like in the tear trough, should be injected just on top of the periosteum and the tail of the brow massaged upward and outward.

A combination of toxins and fillers is also beneficial for glabellar and lateral canthal lines. Occasionally, botulinum toxins do not completely erase lines when the face is at rest. In this situation, a superficial injection of filler can

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**BOTTOM LINE**

When treating the tear trough, bevel the needle down and advance it until the inferior orbital rim is reached. Lay a very conservative amount of hyaluronic acid filler down just on top of the periosteum and massage it into place with the pad of your forefinger. Be conservative in this area—have the patient return for touch ups, rather than over-inject.
help fill in the residual lines. Caution is needed however, especially in the glabellar region—stay superficial to avoid intravascular injection of filler into the supraorbital or supratrochlear arteries. Large boluses can either compress the neurovascular bundles and lead to necrosis or enter the vascular system and cause emboli, which can lead to blindness.

Focus on small amounts, slow injections, and superficial locations to minimize the risk of a central retinal artery occlusion.

CONCLUSION

Fillers and botulinum toxins can be used to open up the periocular area and provide a more youthful, rejuvenated appearance in both men and women. Knowledge of the anatomy in the given regions, properties of the different dermal fillers, and tactics to avoid and treat complications are paramount to achieving optimal results.