
Cosmetic Botulinum Toxin Applications: General Considerations and Dosing

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Cosmetic applications of botulinum toxins continue to expand beyond the FDA-approved use for glabellar furrows. Patients should sign an informed consent for off-label cosmetic uses. Treatment of eyelid and facial rhytids is gratifying for the patients and physicians. Not only do the eyelid injections improve current rhytids, but the future development of mimetic rhytids is prevented when given regularly. It is paramount to understand the anatomy of the eyelid and facial muscles and that the rhytid-inducing musculature is the injection site rather than the actual wrinkles. Patient desires and expectations must be clearly defined as some patients may want to be smooth and adynamic, whereas others prefer a natural youthful appearance. We strongly encourage the latter. Aesthetic appreciation and training is essential in obtaining excellent cosmetic results. We have found that reconstituting OnabotulinumtoxinA (Botox®) with 2.5 cc of preserved saline provides an easy dilution to administer, as each 0.1 cc is 4 units of toxin. The preserved saline also provides a mild anesthetic effect.

Nearly all patients have facial asymmetry, and this must be evaluated similar to preoperative

surgical evaluation prior to injections. Facial asymmetry can be greatly improved by tailoring botulinum toxin injections or worsened by careless “cookbook” approach dosing. Therefore, we recommend injections by physicians as this is a temporary cosmetic procedure. Preexistent brow ptosis must be noted and excessive frontalis paralysis to avoid brow ptosis worsening. Brow lifting and contouring is possible by careful placement of Botox® to either the medial brow depressors or the lateral orbicularis oculi. Alternatively, one brow may be lowered by placing some into the frontalis muscle of the higher side 1–2 cm above the brow area to be lowered (Fig. 120.1). Botulinum toxin injections to highly dynamic areas, such as the crow’s feet and lips, may last 3 months, whereas less dynamic areas, such as the forehead or glabella, may last up to 5–6 months with good dosing.

Our typical dosages for cosmetic Botox® and onabotulinumtoxin A, use are shown in Table 120.1. In general, it is better on new patients to slightly undercorrect until that patient’s optimum dosing is achieved than to overdose and have complications and potential loss of a patient. In general, men and older patients generally require higher doses for cosmetic and functional injections that often last a shorter duration. Higher doses frequently provide better and longer-lasting results. Many of our referred patients, who have “failed” prior botulinum toxin treatment, respond more favorably to higher doses and in optimally placed injection sites.

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Fig. 120.1 A 40-year-old female with asymmetrical eyebrows that received six units of Botox® to the right frontalis to lower the right eyebrow. Bottom photo shows the pleasing result. Additional lift to bring the left brow more superiorly was not performed but could be achieved with a few units to the left depressor superciliaris, left medial corrugator/procerus area, and lateral orbicularis underlying the left brow

Table 120.1 Typical Botox® dosages for cosmetic applications

Forehead	6–20 U total across 3–8 sites
Glabella	24–44 U total across 5–8 sites
Crow's feet (both sides)	12–30 U total across 2–6 sites
Nasal scrunch lines	2–6 U total across 2 sites
Upper lip	2–6 U total across 2–4 sites
Lower lip	2–4 U total across 2–4 sites
Melolabial lines	4–8 U total across 2 sites
Mentalis lines	4–10 U total across 2 sites
Platysmal bands	20–60 U total over multiple sites (variable)