

BOTOX FOR CHRONIC MIGRAINE NEUROLOGYRESIDENTS.NET

Site	Injection	Muscle action	Muscle weakness
Corrugator	<p>1 site on each side (5 units each). 1 fingerbreadth above the medial part of the superior orbital rim. Ask patient to furrow, hold the skin between index and thumb and inject at 90°.</p>	<p>Brow depressor. Creates vertical lines between brows.</p>	Eyebrow elevation
Procerus	<p>1 site at midline (5 units) Midway between the 2 corrugator injections. Ask the patient to furrow and inject in the muscle at 90°.</p>	<p>Draws down the medial aspect of eyebrow. Creates a transverse ridge over the nose.</p>	
Frontalis	<p>2 sites on each side (5 units each). Medial: above the corrugator site, in the upper 1/3 of forehead. Lateral: 1 fingerbreadth lateral to the medial injection site. Inject only in the upper 1/3 of forehead, needle aiming upwards at 45°.</p>	<p>Brow elevator. Creates transverse lines on the forehead.</p>	Eyebrow ptosis
Temporalis	<p>4 sites on each side (5 units each). First: 3 fingerbreadths above the tragus. Second: 2 fingerbreadths above the 1st site. Third: 2 fingerbreadths anterior to the 1st & 2nd sites. Fourth: 2 fingerbreadths posterior to second site (above the helix). Inject the superficial layer, aspirate first, needle aiming upwards at 45°.</p>	Clenches teeth	
Occipitalis	<p>3 sites on each side (5 units each). First: midway between inion (the midline ridge between both occipital protuberances) & tip of mastoid process. Second: a fingerbreadth up and out of 1st site towards the helix. Third: a fingerbreadth up and in of 1st site. Inject the superficial layer, aspirate first, needle aiming upwards at 45°.</p>	Anchor for frontalis muscle.	
Cervical paraspinal	<p>2 sites on each side (5 units each). First: a fingerbreadth below the occipital protuberance, 1 cm from midline. Second: a fingerbreadth up and out from 1st site towards the helix. Inject the superficial layer, aspirate first, needle aiming upwards at 45°.</p>	Stabilize the neck	
Trapezius	<p>3 sites on each side (5 units each). First: at the middle of the muscle. Second: at the middle of the upper half. Third: at the middle of lower half. Keep needle horizontal and perpendicular to the back of the patient.</p>	Extends the neck	

