

Developing Consistency in Nasal Tip Shaping

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INTRODUCTION

Anatomic subtleties of the nasal tip have a dramatic impact on the overall appearance of the nose. Here, we provide a focused review of nasal tip analysis and surgical technique, with particular emphasis on tip sutures and cartilage grafts.

NASAL ANALYSIS

Preoperative nasofacial analysis is systematically performed from frontal, lateral, and basal views in the “10-7-5” fashion described by the senior author (R.J.R).¹ The 4 points of the “four-quadrant” approach (supratip break, infratip lobule, left tip, and right tip domal transition zones) should create 2 equilateral triangles.² Areas of cartilaginous excess, deficiency, malposition, and asymmetry should be noted because these will guide the selection of tip sutures and grafts.

OPERATIVE TECHNIQUE

Using an organized and systematic open rhinoplasty approach is the safest and most precise technique for tip shaping.³

Cephalic Trim

Cephalic trim reduces the length of the cartilaginous frameworks and facilitates passive cephalic rotation of the lower lateral cartilage. It is performed by separating the lower lateral cartilages from the upper lateral cartilages and trimming them, leaving at least a 6-mm-wide rim strip (See Video 1 [online], which displays cephalic trim).⁴

Septal Extension Graft

Septal extension graft is used to control tip projection, rotation, and shape, whereas a columellar strut graft is only effective for unifying the nasal tip, maintaining its position while lacking control over nasal tip rotation (See Video 2 [online], which displays shaping of the septal extension graft) (See Video 3 [online], which displays

septal extension graft fixation and stabilization: part 1) (See Video 4 [online], which displays septal extension graft fixation and stabilization: part 2).

Medial Crura Footplate Approximation

Medial crura footplate approximation corrects footplate deformities and asymmetries (See Video 5 [online], which displays tip suturing: part 1).

Medial Crura Approximation

A “low” suture is placed to stabilize, correct footplate asymmetries, reduce flaring, control columellar width, and strengthen the medial crura. A “high” suture is placed at the infradomal portion of the medial crura to aid in establishing tip width and symmetry (See Video 5 [online], which displays tip suturing: part 1).

Transdomal Suture

Transdomal suture is used to correct asymmetries, correct lateral crural convexities/concavities, and narrow the tip. The end result should be straight, everted lateral crura with the caudal portion higher than the cephalic portion (See Video 6 [online], which displays tip suturing: part 2).

Interdomal Approximation

Interdomal approximation decreases the angle of divergence, narrows the tip-defining points, corrects vertical asymmetries, enhances the infratip lobule, helps camouflage cartilage grafts, and increases tip projection (See Video 6 [online], which displays tip suturing: part 2).

Tip Grafts

Soft tip grafts camouflage prominent and sharp angles of the underlying framework. Cap grafts, infratip lobular grafts, and morselized cartilage are commonly used grafts (See Video 7 [online], which displays butterfly graft).⁵

Dead Space Closure

Dead space closure minimizes scar formation and displacement of newly aligned tip structures. It begins with placement of medial crura footplate horizontal mattress sutures and then proceeds inferior to superior and caudal

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to cephalic (See Video 8 [online], which displays dead space closure).

CONCLUSION

A systematic approach to the nasal tip requires a combination of techniques that will help correct tip deformities, improve tip shape, and minimize deformities due to loss of support.

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