

# Reorienting Lower lateral cartilages with Lateral crural struts: Aesthetic and functional benefits.

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## BACKGROUND

- We will explore reorienting cephalically positioned lower lateral cartilages with LCSG.
- Tip shape and position play a major role in the aesthetic appearance of the nose. The normal angle between the caudal margin of the LLC and the midline septum is 45 degrees or greater. In cephalically oriented LLC, the angle is 30 degrees or less.
- This can create a boxy tip and lobular fullness that results in a parenthesis deformity.

## OBJECTIVE

- We'll discuss the rationale for reorienting the alar cartilages to a more favorable angle to improve tip shape and contour, thus obviating the need to over-resect and disrupt the integrity of tip supporting structures.
- This powerful technique is also used to correct retracted alae and alar base asymmetries, tip rotation, nasal length, and tip projection.

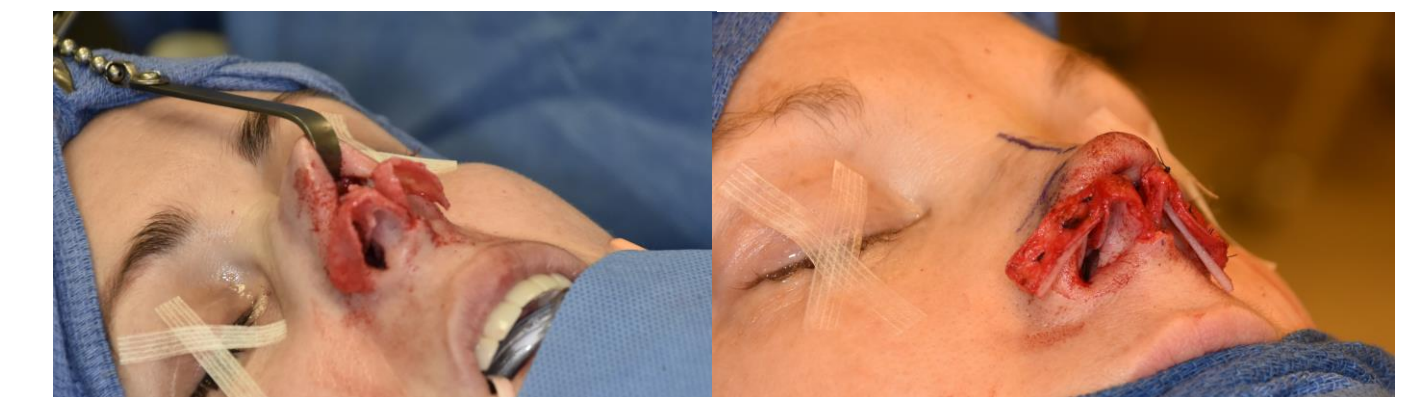
## SURGICAL TECHNIQUE

An open approach is initiated. A dorsal hump is resected, if needed, at this time, followed by osteotomies to close the open roof defect. Exposure of the septum and cartilage harvest is performed.

The lower lateral cartilages (LLC) are examined with a goniometer to confirm their orientation. An angle of 30 degrees or less from the midline to the caudal aspect of the LLC defines cephalic orientation. The LLC are then carefully dissected from the vestibular mucosa and then mobilized from their lateral attachments to the accessory cartilages, allowing complete control of the tip. Cephalic trims may be performed as well.

Lateral crural strut grafts (LCSG) are then fashioned from the harvested cartilage and secured to deep surface of each wing of the LLC, shaping and further strengthening the lateral crura. Precise pockets are then created in bilateral nasal sidewalls; using the tips of sharp scissors, undermining is initiated anterior to the caudal accessory cartilages and directed towards the lateral canthus. The lateral crura are passively placed in these pockets. In cases of severe alar retraction or valve collapse, the strut grafts can extend beyond the piriform aperture. The new dome angle can be determined by placing horizontal mattress sutures between the medial and lateral crus. A columellar strut graft can be secured at this time. Septal-columellar sutures are then performed to secure the desired rotation and projection. Finally, additional tip suturing and tip grafting is performed to achieve the desired aesthetic result.

## Cases



LCSG are generally 3-4mm wide and 15-25mm long, and are secured with 3-4 sutures of 5-0 PDS or vicryl.

## CONCLUSIONS

Reorienting cephalically oriented LLC is quite a versatile approach to reshaping the nasal tip. It is a technically demanding maneuver that, when delivered precisely, corrects multiple issues associated with malpositioned alar cartilages. We have used this approach in many cases involving a boxy nasal tip with long ptotic tips and poorly supported external valves.

## REFERENCES

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