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## Clinical Pearls

*Clinical Pearls help prepare residents for the future by providing them with top tips from experts about what they should know about specific, key subject areas by the time they complete their residency.*

# Scar revision pearls

By H. William Higgins II, MD, MBE, FAAD

### 1) Z-plasty is a scar revision staple!

Z-plasty is an invaluable tool for scar revision that can be utilized to correct free margin distortion (ectropion, eclabium), address webbing of areas such as the medial canthus, and to revise prior straight-line closures with a more camouflaged geometric design. They can be single or multiple depending on the desired degree of movement. A z-plasty restores free margin contour by effectively lengthening a scar. For correct design, the “belly” or middle line of the z-plasty should be oriented parallel to the desired direction of lengthening. The angles on the associated limbs can be adjusted accordingly to add length (i.e., 30-degree angles lead to 25% increase in length; 60-degree angles lead to a 75% increase in length).

### 2) Don't botch the alar notch.

There are various options for correction of alar notching, including z-plasty, turnover flap with overlying full-thickness skin graft<sup>1</sup>, and a “stair step flap.”<sup>2</sup> The choice will depend on the degree of notching and location, medial or lateral, along the alar rim.

### 3) Don't forget the Y-V advancement flap.

The Y to V advancement flap is a useful alternative to a z-plasty for repairing medial canthal webbing. It should be designed so the forked aspect of the Y is pointing laterally. A Y-shaped incision is made, and the flap is advanced medially to create a V-shaped closure. This allows for recreation of a natural and more symmetric contour of the medial canthus.

### 4) Don't forget the V-Y advancement flap.

V-Y advancement flap is an excellent revisionary option for cicatricial eclabium of the upper or lower lip. It can be used alone or combined with z-plasty(s) to

enhance movement. A V-shaped flap is designed with the V opening toward the direction of desired movement. The V-shaped lines are incised, and great care must be made to undermine/release any pre-existing scar tissue at the area as this will otherwise limit movement of the flap. The flap is then advanced to create a Y-shape closure, with closure of the secondary defect creating the stem of the Y.

### 5) Camouflage with broken lines.

Geometric broken line repairs can be utilized to revise conspicuous linear scars on the head and neck. The idea being the geometric lines are less conspicuous to the naked eye than a depressed linear closure. Great care must be taken when suturing these repairs to provide good approximation and eversion of the merged skin edges.

**6) Master the lateral tarsal strip.** The lateral tarsal strip is a more advanced technique that can be utilized during large repairs (i.e., cervicofacial flap near the lower lid, to reinforce correct position of the lower lid, or months after the initial reconstruction to repair cicatricial ectropion). The surgeon must first release the lower crus of the lateral canthal tendon, strip the anterior lamella off the tarsal plate, trim the lateral aspect of the tarsal plate, and suture the tarsal plate in a superolateral position at Whitnall's tubercle, a small bony prominence within the lateral aspect of the orbital rim.

## References:

1. Zitelli JA, Repair of the soft triangle of the nose, *J Dermatol Surg Oncol.* 1994 Dec;20(12):839-41. PMID: 7798420.
2. Leach, BC, Cook, J. Revisionary Technique for Alar Rim Notching. The Stair-Step Flap. *Dermatologic Surgery.* October 2009, Volume 35, Issue 10, p. 1549-1554. **DR**

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