

# Reverse-Grip Technique of Scissors in Dermatologic Surgery: Tips to Improve Undermining Efficiency

Tian Hao Zhu, MD; Darren Guffey, MD

Undermining in difficult-to-reach positions often requires a shift in body position or stretching over the surgical field to obtain adequate reach. We propose a technique of reversing the grip on undermining scissors that improves efficiency without sacrificing technique.

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## Practice Gap

One of the most important elements of successful reconstruction is effective undermining prior to placement of buried sutures. The main benefit of an evenly undermined plane is that tension is reduced, thus permitting seamless tissue mobilization and wound edge approximation.<sup>1</sup>

However, achieving a consistent and appropriate plane can present challenges in certain blind spots within one's field of work. A right hand-dominant surgeon might find it difficult to undermine tissue between the 3-o'clock and 6-o'clock positions (Figure 1) and often must resort to unnatural positioning to obtain adequate reach.

We propose a technique of reversing the grip on undermining scissors that improves efficiency without sacrificing technique.

## Technique

The surgeon simply grasps the ring handles with the ring finger and thumb with the tip pointing to the wrist (Figure 2). Most of the control comes from rotating the wrist while spreading with the thumb (Figure 3).

The main advantage of the reverse-grip technique is that it prevents abduction of the arm at the shoulder joint, which reduces shoulder fatigue and keeps the elbow close to the trunk and away from the sterile surgical field. Achieving optimal ergonomics during surgery has been shown to reduce pain and likely prolong the surgeon's career.<sup>2</sup>

A limitation of the reverse-grip technique is that direct visualization of the undermining plane is not achieved; however, direct visualization also is not obtained when undermining in the standard fashion unless the instruments are passed to the surgical assistant or the surgeon moves to the other side of the table.

Undermining can be performed safely without direct visualization as long as several rules are followed:

- The undermining plane is first established under direct visualization on the far side of the wound—at the



**FIGURE 1.** Undermining tissue between the 3-o'clock and 6-o'clock positions often requires a shift in entire body position or stretching over the surgical field to obtain adequate reach, which can strain the shoulder and limit efficiency.

From the Department of Dermatology, University of Virginia, Charlottesville.

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Correspondence: Tian Hao Zhu, MD, Department of Dermatology, University of Virginia, 1221 Lee St, Mailbox 800718, Charlottesville, VA 22908 (hzhu678@gmail.com).

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**FIGURE 2.** Apply the reverse-grip technique by grasping the ring handles with the thumb and ring finger with the scissor tip pointing to the wrist.



**FIGURE 3.** The reverse-grip technique allows the surgeon to maintain a natural position by keeping the elbow close to the chest while permitting a consistent plane of undermining.

6-o'clock to 12-o'clock positions—and then followed to the area where direct visualization is not obtained.

- A blunt-tipped scissor is used to prevent penetrating trauma to neurovascular bundles. Blunt-tipped instruments allow more “feel” through tactile feedback to the surgeon and prevent accidental injury to these critical structures.

- A curved scissor is used with “tips up,” such that the surgeon does not unintentionally make the undermining plane deeper than anticipated.

### Practice Implications

With practice, one can perform circumferential undermining independently with few alterations in stance

and while maintaining a natural position throughout. Use of skin hooks to elevate the skin can further aid in visualizing the correct depth of undermining. If executed correctly, the reverse-grip technique can expand the surgeon’s work field, thus providing ease of dissection in difficult-to-reach areas.

### REFERENCES

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