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# Combination hand–instrument tension suture tie



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## SURGICAL CHALLENGE

Tying sutures under tension is a common challenge in surgery. Various solutions to this problem include pulley sutures, buried mattress sutures, hand tension ties, towel clamps, and surgical assistant to physically relieve tension on the closure. Disadvantages of these techniques include increased suture waste and additional time involved in suture placement.<sup>1</sup> Penetrating towel clamps cause tissue trauma and require an extra instrument on the tray. For various reasons, support staff are not always readily available. Combining a hand tie with an instrument tie maximizes closure efficiency and minimizes overall costs and suture waste.

## SOLUTION

A dermal buried suture is placed. A slip knot is used to start the combination hand instrument tie. A single-looped instrument tie throw is performed first. The surgeon then uses the index finger of the nondominant hand to maintain tension and place another suture throw in the same direction using the needle driver to manipulate the free suture end (Supplemental Video 1, available at <http://www.jaad.org>). The final 2 throws are placed with a standard instrument tie in opposite directions. Combining a hand tie with an instrument tie maintains the advantages of each technique without the drawbacks. The combination is faster, does not require one to set any instruments down, and preserves suture. After a brief learning curve, a combination hand–instrument tie is faster and requires less suture than alternative tension relieving suture techniques.

## REFERENCE

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