



Looking for Closure: Managing simple excisions or wounds efficiently

CLINICAL QUESTION

What are some options for efficiency in wound closure?

BOTTOM LINE

Punch biopsies 4mm do not require closure but 8mm do. Skin-glue is similar to tape or sutures for simple wounds for clinician-rated cosmesis and patient satisfaction with similar infection rates of 4-7%. However, dehiscence occurs in ~5% with skin-glue compared to 1% with suture. Absorbable sutures have similar outcomes to non-absorbable sutures.

EVIDENCE

- Results statistically significant unless otherwise stated.
- Punch biopsy: One randomized controlled trial (RCT), 77 patients, two 4- or 8-mm punch biopsies on arm/leg/trunk, one sutured and other closed by secondary-intention. Assessed at 9 months.¹
 - Clinician-rated cosmesis: No difference.
 - Patient preference:
 - 4mm: No difference.
 - 8mm: 14% preferred secondary-intention versus 53% preferred suture (remainder: no preference).
- Skin-glue (adhesive) versus sutures: One systematic review (33 RCTs, 2793 lacerations) of incisional wounds:²
 - Wound dehiscence (17 RCTs, 1225 patients): 4.5% skin-glue versus 1.3% sutures
 - Time to closure (5 RCTs, 407 patients): Not pooled, results inconsistent.
 - Clinician/patient satisfaction, infection: No difference.

- Second systematic review³ included non-randomized studies: No difference in wound cosmesis.
- Skin-glue versus tape: Two systematic reviews (16-33 RCTs, 2793-9783 lacerations), children/adults with lacerations/incisions:^{2,3}
 - Clinician-rated cosmesis (3 RCTs, 173 wounds):³ Standard mean difference reported, not clinically interpretable.
 - RCT⁴ (86 patients) with similar results, 2-month wound cosmesis [100-point visual analogue scale (VAS), higher=better]: 56 skin-glue versus 63 tape (difference not likely clinically meaningful).⁵
 - Patient satisfaction, dehiscence, infection, or time-to-perform-closure:³ No difference.
- Skin-glue versus tape/staples/sutures combined: One systematic review (13 RCTs, 1322 lacerations),⁶ adult/children lacerations:
 - Pain VAS (100-point, lower=better) (1 RCT, 136 patients): 11 points lower with skin-glue.
 - Time to perform closure (6 RCTs, 584 patients): Skin-glue 4.7 minutes faster.
 - Cosmetic appearance, dehiscence, infection: No difference.
- Absorbable versus non-absorbable sutures: Two systematic reviews (7-11 RCTs, 702-751 patients), children/adults with lacerations/incisions:^{7,8}
 - Cosmesis, patient satisfaction, dehiscence: No difference.^{7,8}
- Adverse events:³ No difference in infection (4-7.6%).
- Limitations: Differing rating scales/outcomes, blinding of assessors unclear/unknown.^{3,4}

CONTEXT

- Simple lacerations can be cleaned with tap water⁹ and repaired with clean non-sterile gloves without increased infection.¹⁰
- Skin-glue: Octylcyanoacrylate (Dermabond™) or butylcyanoacrylate (Krazy Glue™).

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