Dive In: Deciding on Suture Material for Deep Layer Closures
Jen Swisher, PA-C

Selecting the ideal suture material for deeper layers involves careful consideration since specific materials offer varying absorption rates, making them suitable for different wound depths. When speaking with Dr. Christina Shenvi on an episode of ERcast, Dr. Cohen recommended the following suture material options for closing the deeper layers of the skin (buried):

- MONOCRYL® (poliglecaprone 25)
  - Monofilament absorbable material used in buried layers
  - The fastest absorbing of the buried suture materials: 7-10 days
- VICRYL™ (polyglactin 910)
  - Braided absorbable material for buried layers under significant tension
  - Absorbs in 2-3 weeks
  - 3-0 VICRYL™ is a good choice for bringing the deepest layers together (e.g., muscle)
  - Choose 2-0 VICRYL™ for repairing the galea
- VICRYL RAPIDE™ (polyglactin 910)
  - Braided absorbable material, not typically recommended for use on skin due to scarring and tissue reactivity
  - Absorbs in approximately 10 days

Suture	Absorbable	Location	Absorption
Monocryl	Monofilament, absorbable	Buried	7-10d
Vicryl Rapide™	Braided, absorbable	Buried	~10d
Vicryl	Braided or monofilament, absorbable	Buried	2-3 weeks

Buried Dermal Layer Techniques

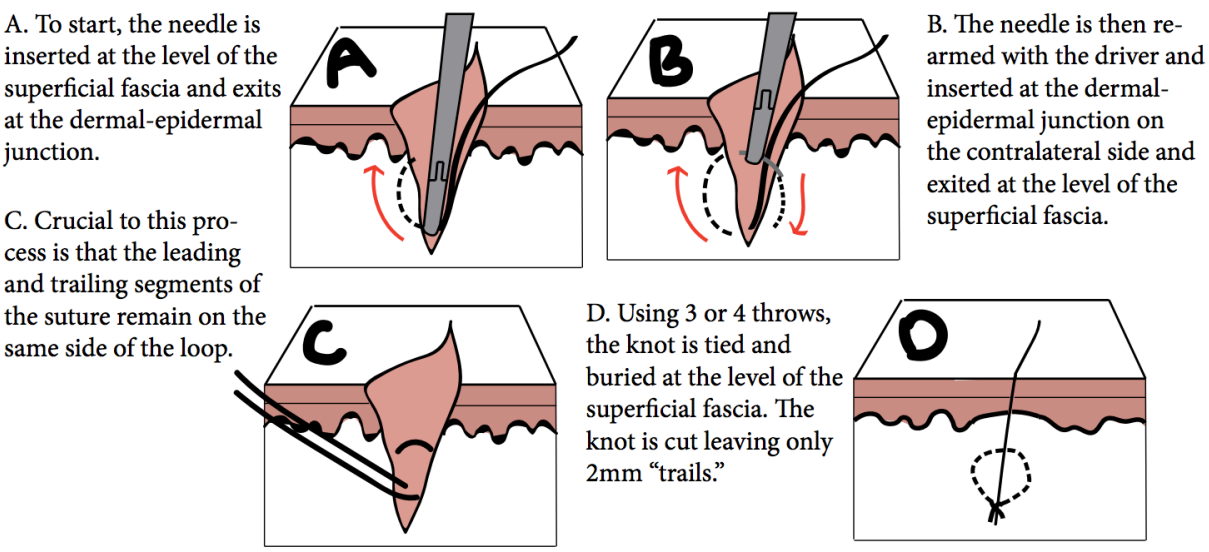
🪡Place the suture vertical/perpendicular to the laceration in a deep-to-superficial, superficial-to-deep pattern.

🪡The buried layer alleviates tension and should be able to independently keep the wound closed.

🪡Use a bit of travel, and don't throw the stitch at the same level. Go deep, curve the stitch superficial, and grab more tissue so the tissue isn't completely aligned but

more oblique. This can help take more tissue to pull the wound together and results in a tighter closure over a larger area.

How do I place deep sutures?



Two major assets plastic surgery brings to the table are time and a multi-layer repair technique. Therefore, it is in our patient's best interest that we hone our deep-layer closure skills as emergency medicine clinicians. This is particularly paramount when the laceration is on the forehead and the scar, or lack thereof, will be displayed for years to come.