Emergency Department Suture Guide

SITE	WOUND CLOSURE TYPE	SIZE	DESCRIPTION	NON-ABSORBABLE REMOVAL
Scalp	Synthetic (Vicryl Rapide)	4/0 or 5/0	**Absorbable**	
	Staples	N/A	• Only to be used in hairline Useful for longer deeper wounds with straight edges	5–7 days
	Wound adhesive (Liquiband or Dermabond)	N/A	• Hair ties may assist in closure	
Face: surface	Collagen (Plain Gut) PREFERRED	6/0	**Absorbable (7–14 days if kept dry)** • Use to avoid having to remove sutures in younger children • Put soft white paraffin or Vaseline along wound • Steri-strip over top – keep dry • Remove after 1 week at night when child is asleep and it will pull dissolvable suture ends with it • You can also loosen ends by rubbing with face washer after 5 days while bathing • Continue with steri-strip or other tape along laceration line and film dressing for 6 weeks to decrease tension and reduce scar formation • Use Vicryl Rapide on wet mucosa	
	Synthetic (Vicryl Rapide)	6/0		
	Monofilament suture (Novafil)	6/0	**Non-absorbable** Monofilament	5–7 days
	Wound adhesive – Liquiband or Dermabond	N/A	Can be used to close skin edges for superficial laceration. If there is dermal interruption then the dermis needs approximating with deep buried absorbable sutures. Can then glue edges	
Face: deep (buried sutures)	Synthetic (Vicryl Plus)	5/0	**Absorbable (63 days)** Braided	
	Monofilament (Monocryl)	5/0	**Absorbable (91–119 days)** • Monofilament with knot security of braid • Pliable, easy to handle and tie • Lasts 3 months in dermal layer • DO NOT use to close skin on face (takes too long to dissolve)	
Lips	Collagen (Plain Gut)	6/0	**Absorbable (7–14 days if kept dry)**	
	Synthetic (Vicryl Rapide)	6/0	**Absorbable (7–14 days if kept dry)** • Use to avoid having to remove sutures in younger children • You can loosen ends by rubbing with face washer after 5 days while bathing • Continue with Steri-strip along laceration line and film dressing for 6 weeks to decrease tension and reduce scar formation • Use Vicryl Rapide on wet mucosa	
Hands: surface	Monofilament suture (Novafil)	4/0	**Non-absorbable** Monofilament	10–14 days
deep (buried)	Synthetic (Vicryl Plus)	5/0	**Absorbable (63 days)** • Braided • *Likely to require plastics or orthopaedic referral. Can also use Monocryl suture material	
Limbs	Monofilament (Monocryl)	4/0 or 5/0	**Absorbable** Often required first and then external closure with below	
	Monofilament suture (Novafil)	4/0 or 5/0	**Non-absorbable** Close deeper layers with above first increasing strength of closure	10–14 days
High tension areas (e.g. back, knee)	Monofilament (Monocryl)	4/0 or 5/0	**Absorbable** Often required first and then external closure with below	
	Monofilament suture (Novafil)	3/0–4/0	**Non-absorbable** Close deeper layers with above first increasing strength of closure	10–14 days
All areas	LiquiBand Dermabond Skin link	1–2 layer 2 layers Cut to size. Good for chin lacs	**Suitable for repair of epidermis only** • Do not use if dermal interruption as dermis needs to be approximated with absorbable sutures. Wound adhesive may then be used to appose skin edges. • Do not use on dirty wounds eg dog bites or highly contaminated ones • Do not use on jagged/irregular wounds – edges must be easily apposed • Not suitable for high tension areas e.g. knee, elbow • May cover with Hypafix in young child if prone to picking otherwise leave uncovered • Keep dry, do not immerse or swim for 5 days	Will peel off in 5–7 days

ANAESTHETIC AGENTS

- Laceraine – apply minimum 45 minutes prior to suturing. Cut gauze to shape/size of wound soak with Laceraine and pack wound, seal with Tegaderm: DO NOT PLACE OVER STERISTRIPS.
- Lignocaine with Adrenaline (inc Laceraine) – do not use on digits or penis, but works well on ears and noses which have a good blood supply
- Bicarbonate 1:10 mixed with lignocaine to buffer – reduces pain
- Administer anaesthetic using 30G or insulin needle for initial infiltration

REFERRAL to PLASTICS

- Complex, irregular wounds
- Vermillion Borders – discuss with senior doctor or nurse practitioner, likely to require plastics referral
- Dog bites requiring closure
- Hands and fingers – *remember that full movement can still occur with a partial tendon laceration so most fingers and wrists need exploration
- Wounds requiring extension/plasty etc
- Gross contamination\large amount of gravel/bitumen which may require a compound scrub in theatre
- Wounds prone to keloid scarring e.g. certain ethnic groups

AFTER CARE

- Keep dry for the first 24 hours then shower but do not immerse
- Cover is preferable. Fixomull, mepitel or mepilex Ag (for dirty wounds) can be used to cover sutures
- No swimming for 5 days

LONG TERM CARE

- To minimise scarring, on removal of sutures place a steri-strip or similar tape along the length of the wound. Change every 7–10 days or as required. Shower/bathe/swim as usual
- After 6 weeks remove and massage twice a day with Bio-oil, vaseline or moisturiser that contains Vitamin E
- Keep scar protected from the sun

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