

DRIVING **CHANGE2023**  
THE URGENT CARE CONVENTION

**UCA** URGENT CARE  
ASSOCIATION®



COLLEGE OF  
URGENT CARE  
MEDICINE

# Laceration and suturing workshop



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URGENT CARE  
MEDICINE

# Instructor

- Patrick O'Malley, MD
- East Carolina University, Brody School of Medicine
- Carolinas Medical Center, Emergency Medicine Residency
- 15 years community emergency medicine and urgent care experience
- Urgent Care Association National Conference Presenter
- Board of Directors, College of Urgent Care Medicine
- Creator, The Laceration Course, **Booth 104** Come see me!



# Disclosures

- Royalty from Medline Industries
- Consultant for Medline Industries
- Royalty from Rescue Essentials

# Format

- Didactic and hands-on components
- **Utilize the QR Code to get a menu of videos – practice at your desk**
- Ask questions!

**QR Codes For Suturing Techniques**  In partnership with 

			
Instrument tie and surgeons knot	Simple interrupted stitch	Interrupted stitch silicone pad	Running stitch
			
Running stitch-silicone pad	Running locking	Horizontal mattress	Horizontal mattress silicone pad

# My Epiphany

- Suturing ~ playing guitar
- It is cool, it is fun, it takes time to learn, focus on a few things, practice, and have **REALISTIC EXPECTATIONS**
- Online course = knowledge
- **Hands-on practice**
- For today and the next few weeks:
  - Instrument tie
  - Interrupted
  - Horizontal mattress
  - Corner stitch, V and Y shaped lacerations
  - Figure-of-8



# Morning Session - Basic Suturing Concepts

- Approach to lacerations
- Get you comfortable and confident with suturing instruments
- Master the instrument tie
- Simple interrupted and running sutures
- Horizontal mattress

# Approach to Lacerations

- Patient in waiting room with a lac. Already start thinking about what I'm going to need
- Get in the room - ABCs, routine history taking. What happened? Tetanus status
- Look-superficial observation will tell me 95% of what I am going to need. Order X-rays if needed. Gather supplies, set things up, draw up anesthetic
- Anesthetize. Go chart, see another patient. Come back-irrigate, sink vs stretcher, finish setting up. Repair. Talk about discharge instructions while repairing
- Wipe wound clean. Cover with gauze. Antibiotic ointment, bandage. Dispose of materials. Chart
- If busy, large complex laceration, may have to stop and go check on department

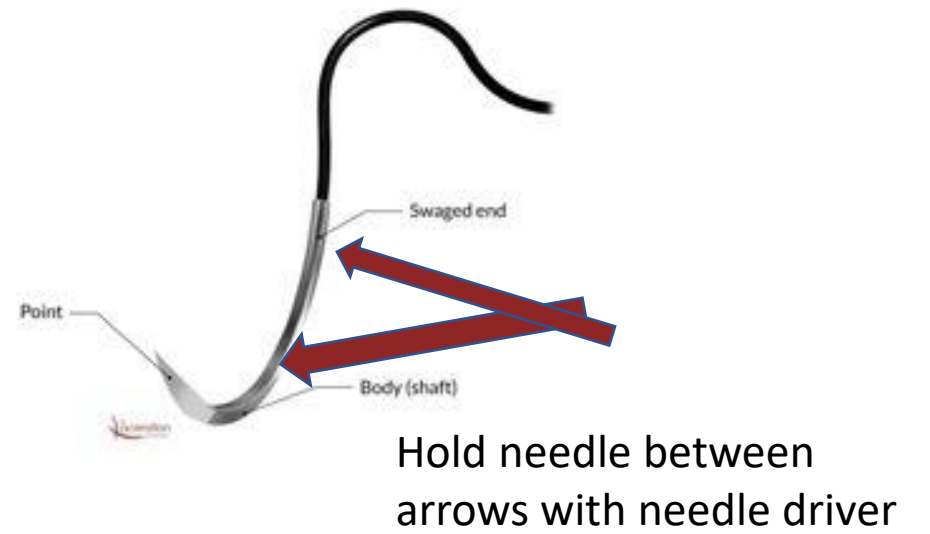
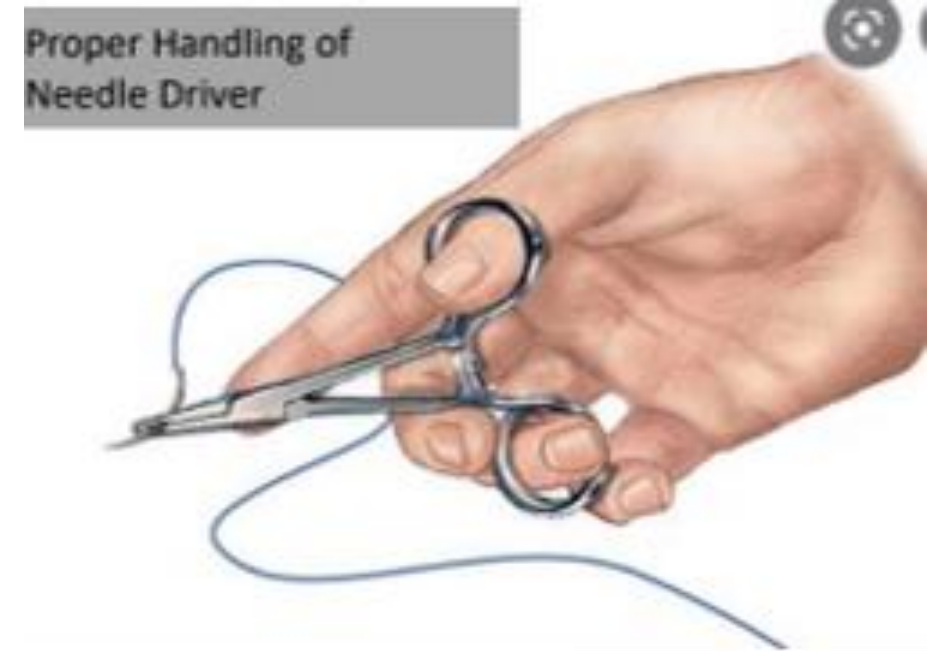
# Instrument Handling

- Take out your instruments and pad
- Instrument handling and instrument tie
- Proper techniques
- Not touching needle with fingers



# Instrument Handling

- Instruments are an extension of your hand
- “Turning the doorknob”
- Needle driver to present tissue to the needle and facilitate proper needle placement in the tissue
- Body mechanics – make the instruments for **FOR** you



# Handling Suture Material



# Knots

- **Instrument tie**

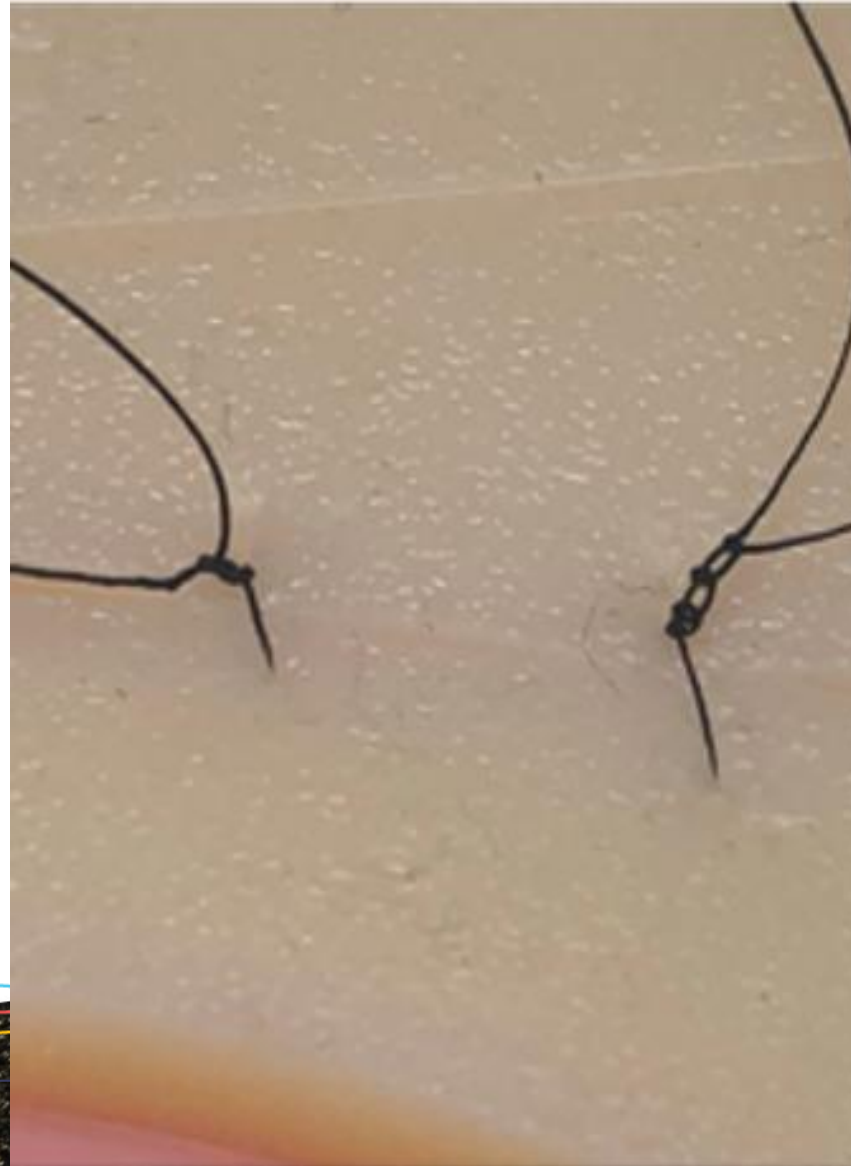
- Basic skill, you must master it
- **Back and forth in opposite directions** so the knots lay down nicely
- 2 throws followed by single throw, repeat... (surgeon's knot)
- Number of throws depends on suture material
- Thread "memory"



# Knot Tying

- Prone to unraveling

CORRECT



INCORRECT

## Instrument Tie

- Repetition
- Needle driver down
- Wrap 2 times TOWARDS the tail
- Pull in opposite direction
- Wrap 1 time TOWARDS the tail
- Pull in opposite direction
- Left, right, left, right – away, to, away, to, etc...
- 3-5 “throws”

**MONOTONOUS**  
**REPETITION!!!**

# INSTRUMENT TIE

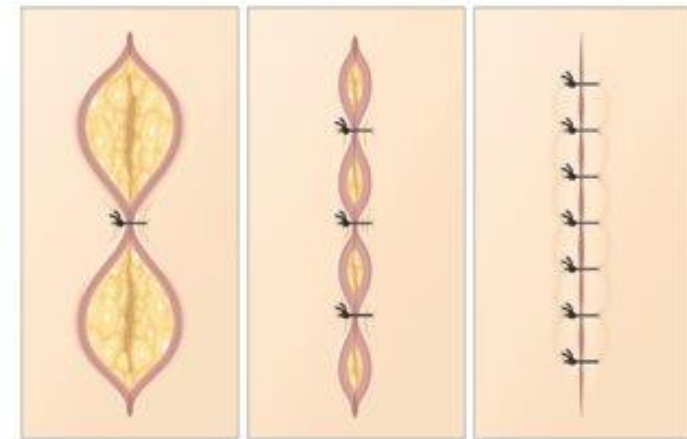
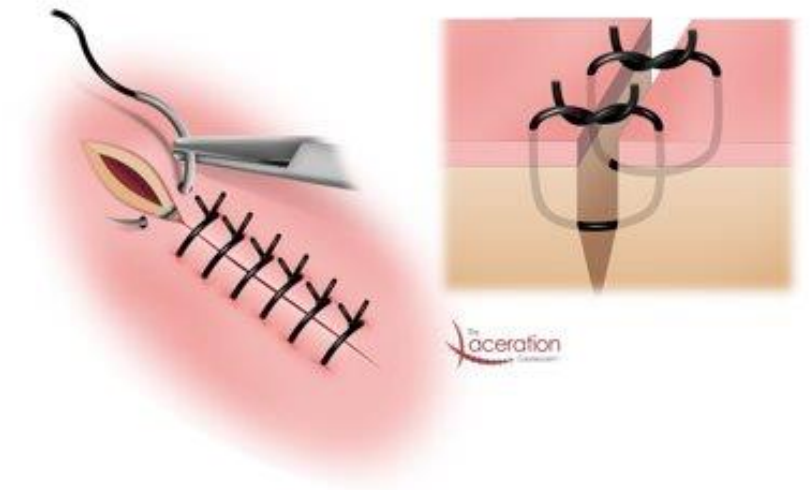
A close-up photograph of a surgical instrument tie on a sutured skin. The skin is split into two layers, with a suture line visible. A metal surgical instrument, likely a needle holder, is positioned on the right side of the frame, with its handle resting on the skin. The background is a dark blue surface.

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SUTURE TECHNIQUES

# Simple Interrupted

- The basis of suturing. Most common technique. You must have this mastered.
- Depth of sutures – get a good bite
- Everting wound edges
- Spacing of sutures – 4-5mm or  $\frac{1}{2}$  the length of the individual suture
- Bisecting??



A close-up photograph of a surgical incision on a patient's skin. The incision is a vertical line, approximately 2-3 cm long, with several interrupted sutures visible. The sutures are dark, likely black or purple, and are spaced evenly along the length of the wound. The skin around the incision is slightly reddened and appears to be in a clinical setting.

# **SIMPLE INTERRUPTED SUTURE**

**2**

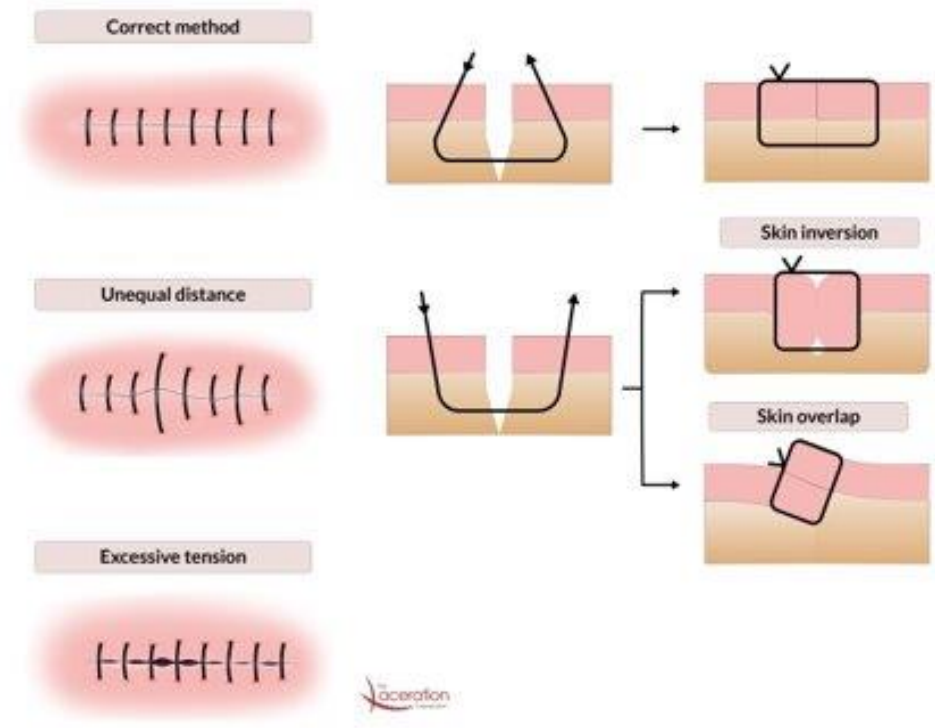
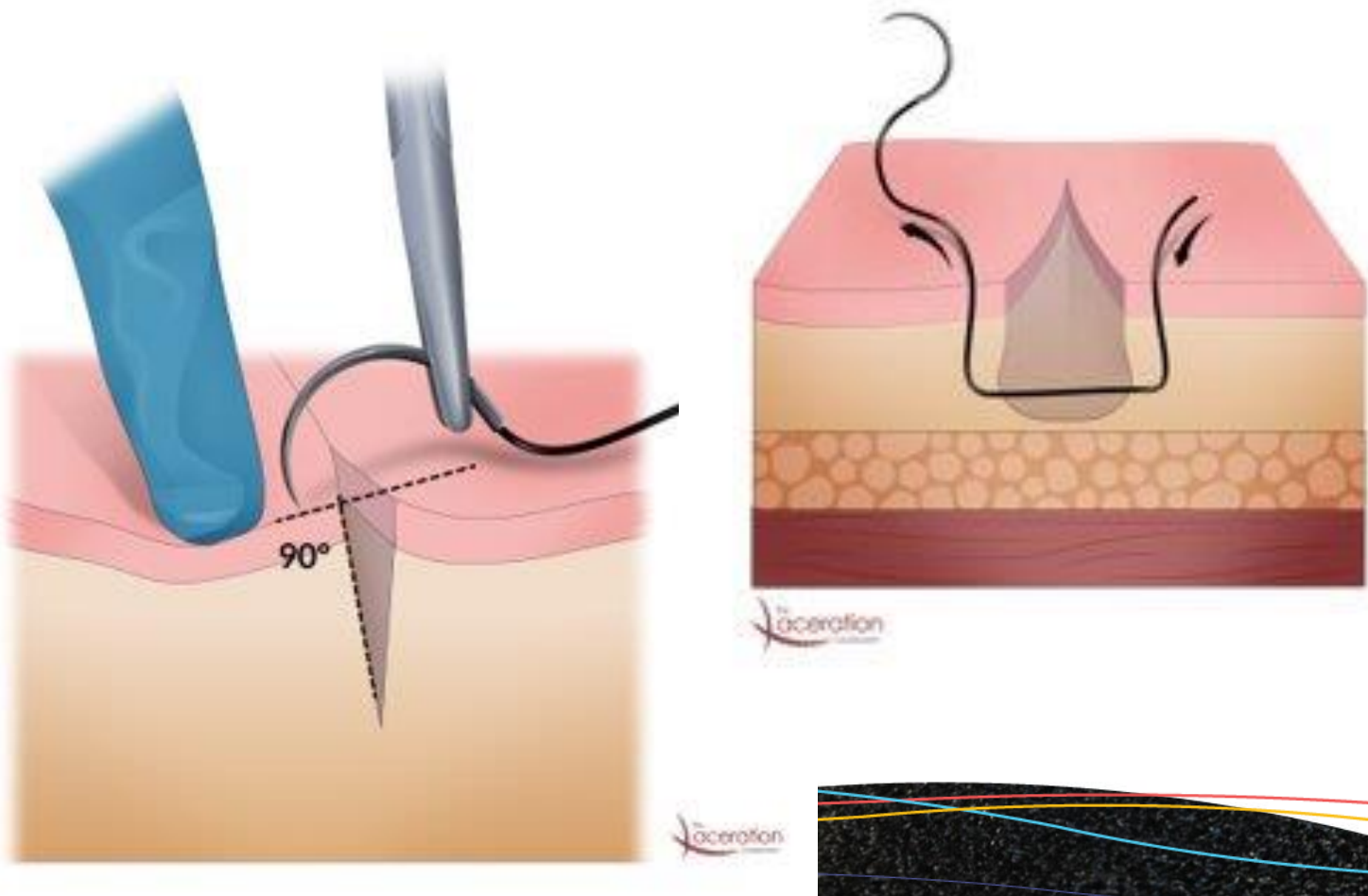
**SUTURE TECHNIQUES**

# Eversion



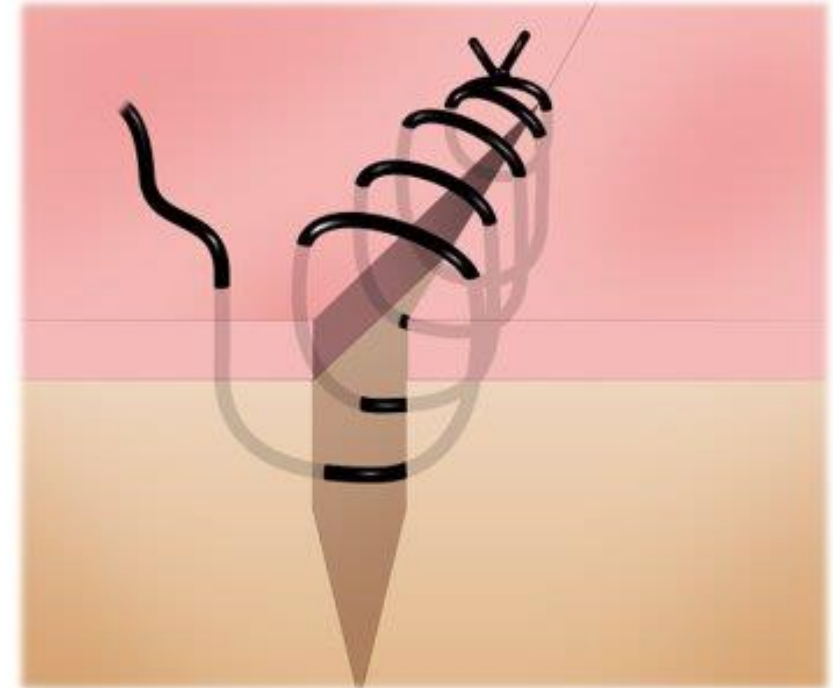
# Wound Eversion

- Not applicable to silicone pads!!



# Simple Running

- Fast, saves time
- Good for large lacerations
- Even distribution of tension
- If there are any errors or develops infection later, you have to remove the whole thing
- Strive for symmetry



# SIMPLE RUNNING SUTURE



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SUTURE TECHNIQUES

# Laceration Management

- Prepare ahead
- You can do more than you think
- It takes time to master, be patient

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# Session Evaluation

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What did you find most valuable about this **content**?

What would have made this **content** better?

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- [Omalleymd@ebmedicine.net](mailto:Omalleymd@ebmedicine.net)
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THANK YOU!!

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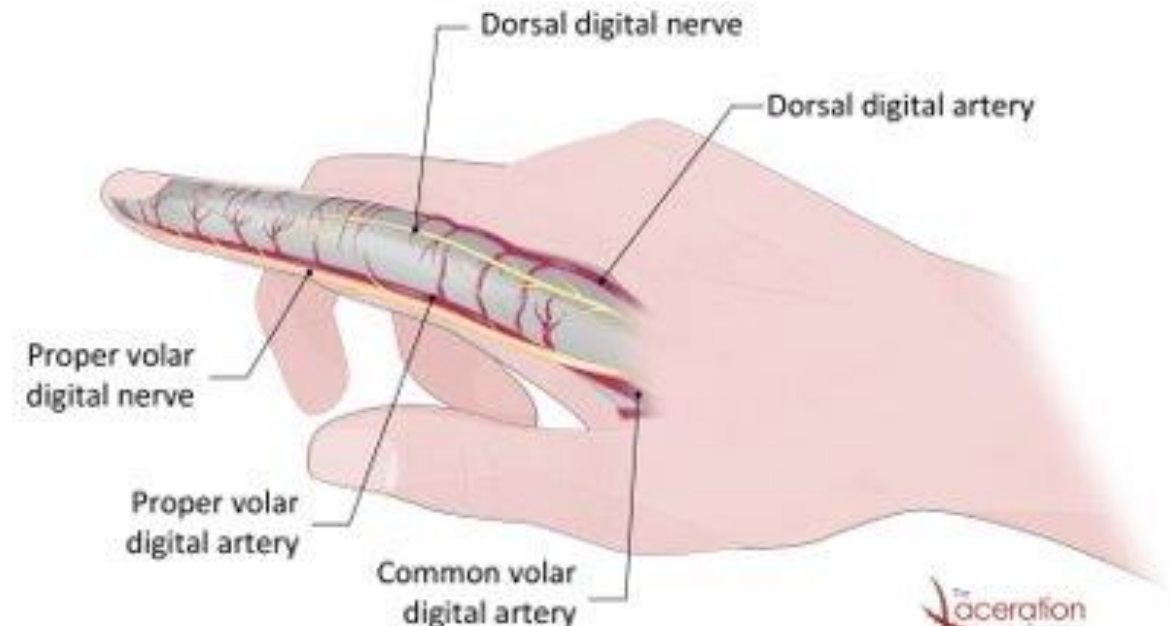
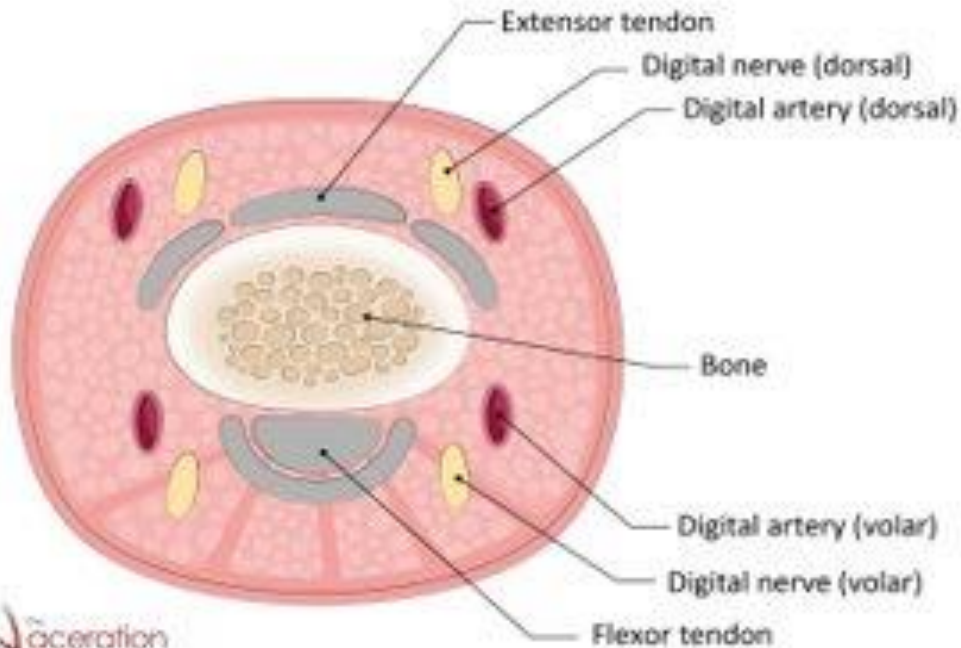
			
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# Afternoon Session - Advanced Suturing Concepts

- Digital block
- Mattress
  - Horizontal
  - Figure of 8
  - Vertical
  - Parallel
  - Corner/V/Y
- Steri-strip/suture combo

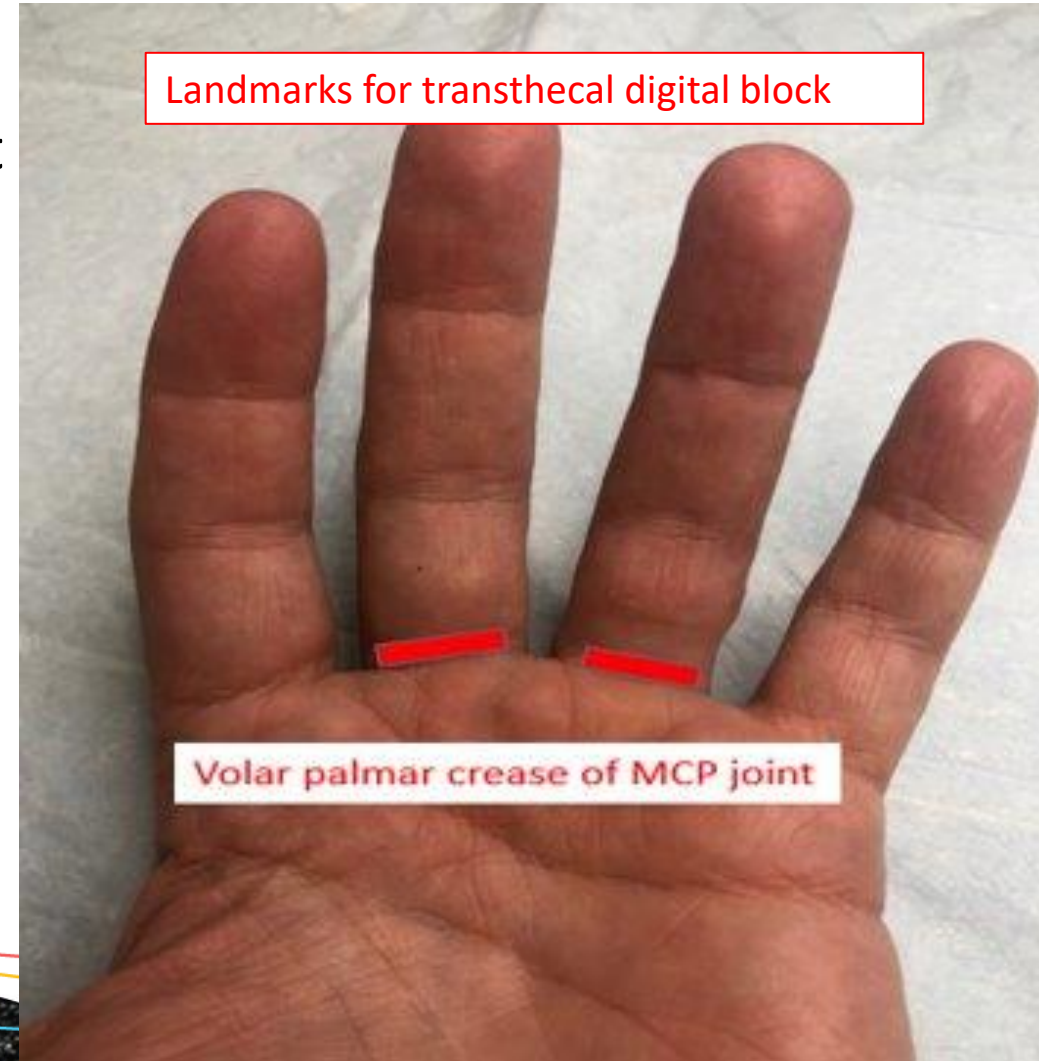
# Digital Block

- Inject slowly
- Let sit for 5 minutes, inject more if needed
- If two adjacent fingers or toes injured, can inject in shared web-space to get two surfaces at one time

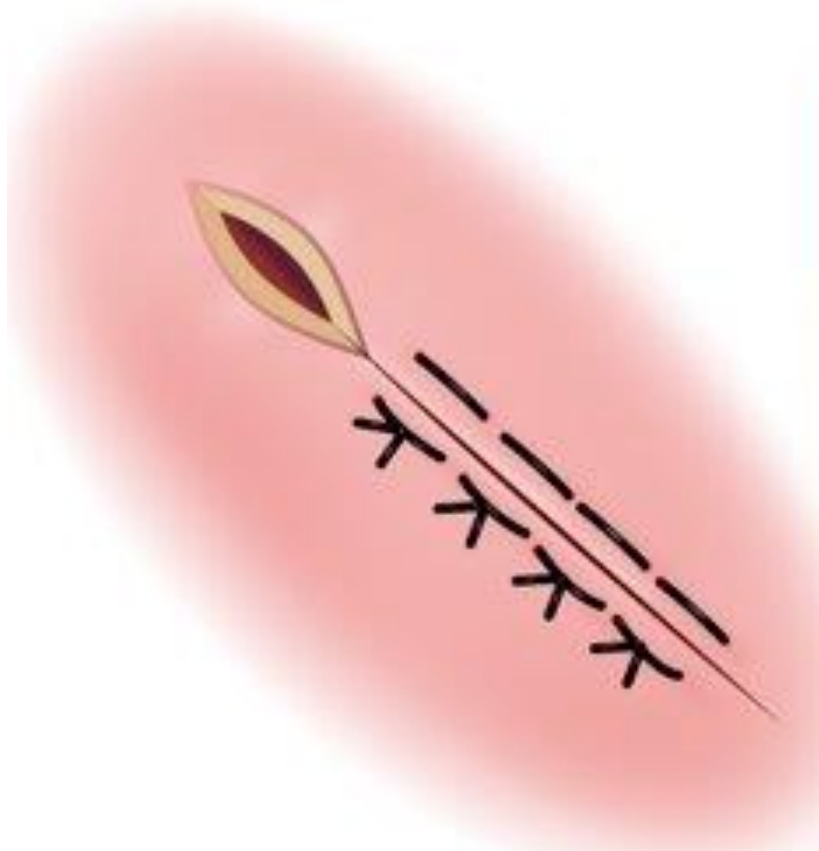


# Transthecal Block

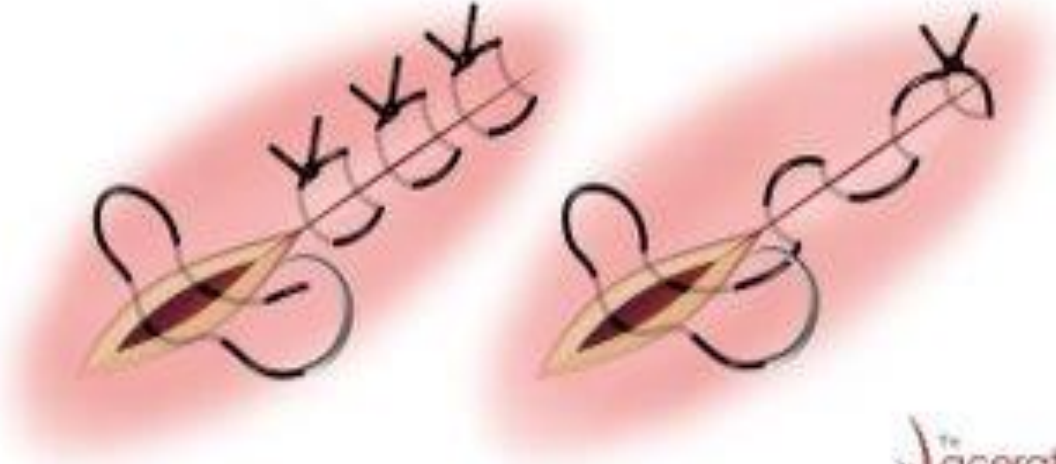
- Single injection
- Midline palmar/MCP crease
- Aim distal, go to bone, aspirate, withdraw and inject
- Great for multiple adjacent fingers



# Horizontal Mattress Stitch



Horizontal mattress sutures  
(interrupted and continuous)



# HORIZONTAL MATTRESS SUTURE

A close-up photograph of a horizontal mattress suture on human skin. The suture is made of purple thread and is oriented vertically in the image. It consists of two parallel horizontal lines of thread, one above and one below the skin, connected by a vertical line. The skin is light-colored and shows some redness and bruising around the suture site.

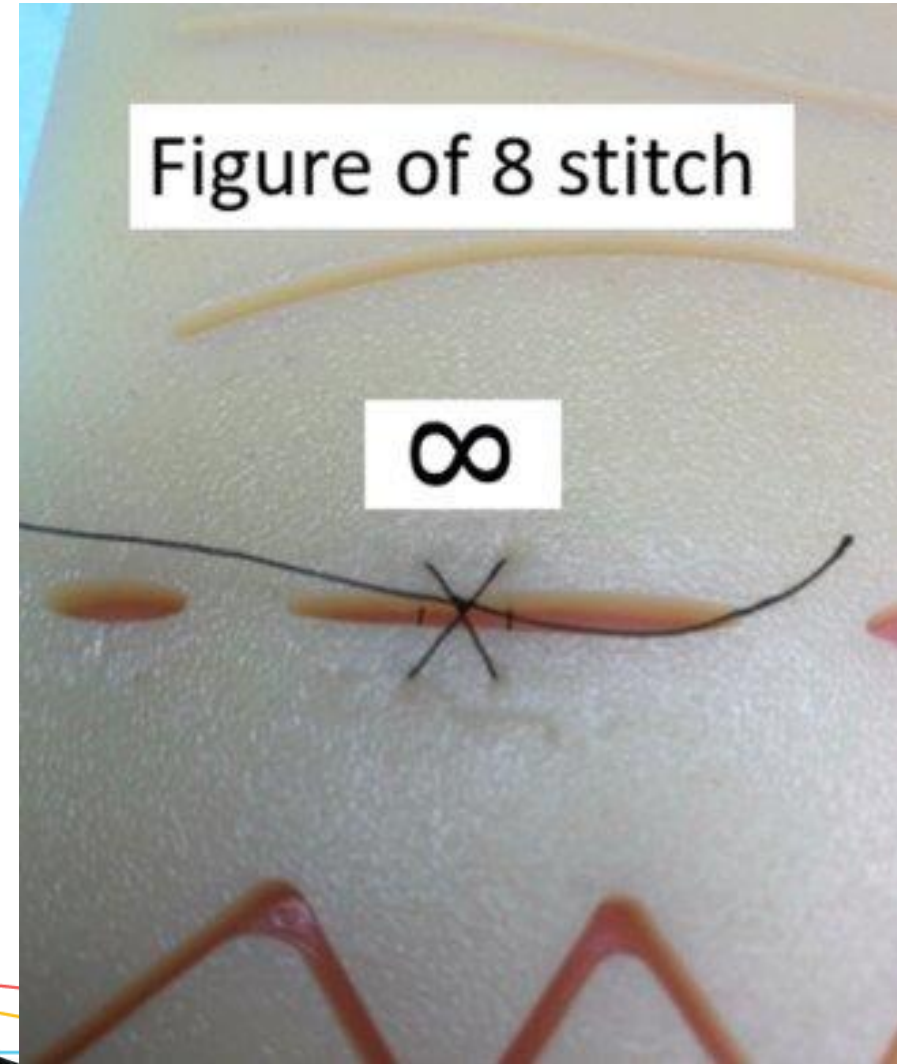
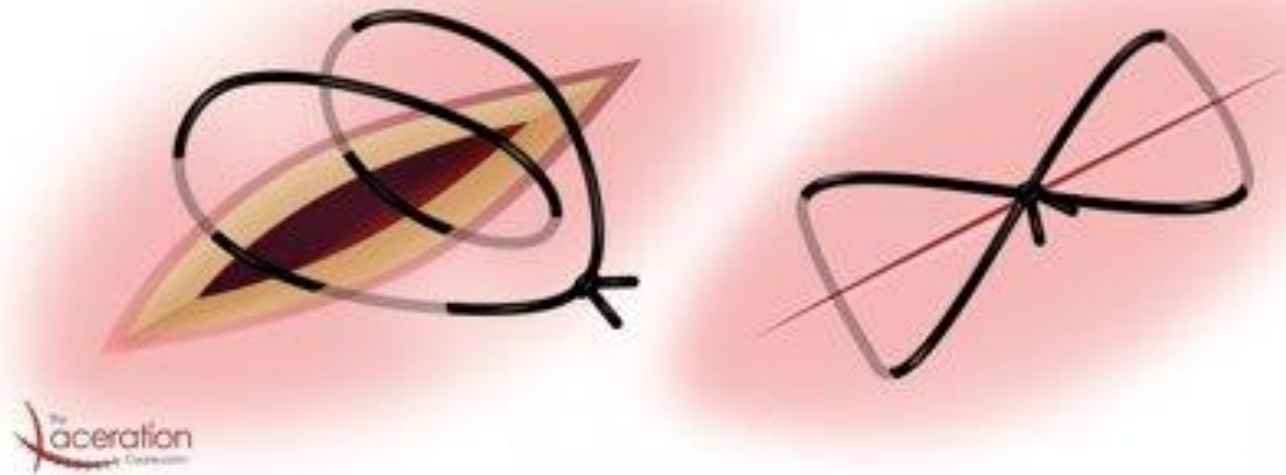
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SUTURE TECHNIQUES

## Figure of 8

- Bleeding varicose veins
- Arterial puncture site oozing
- Paracentesis/thoracentesis oozing

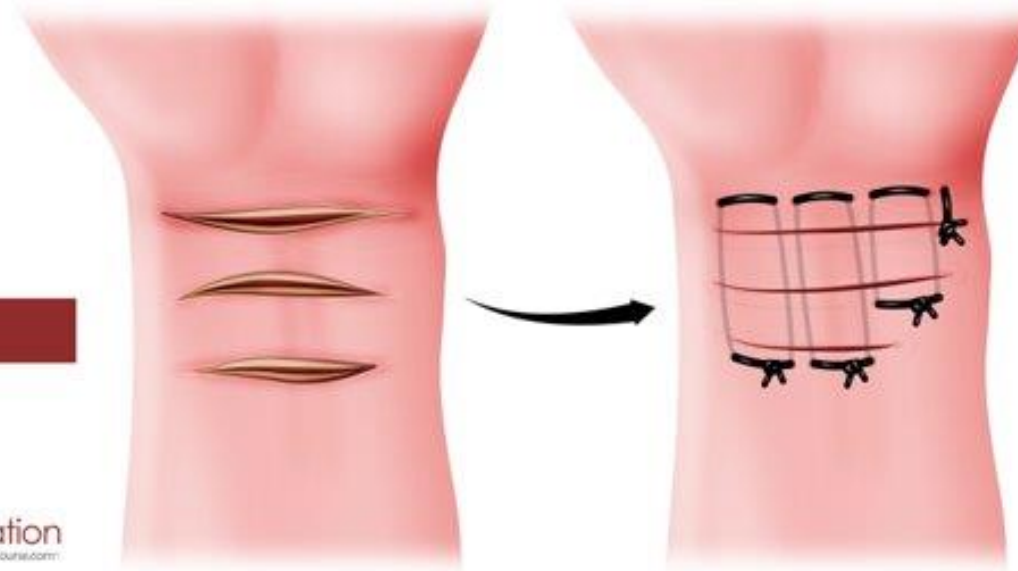
Figure of eight suture



# Parallel Lacerations



The **aceration**  
Course.com





PARALLEL LACERATION  
REPAIR

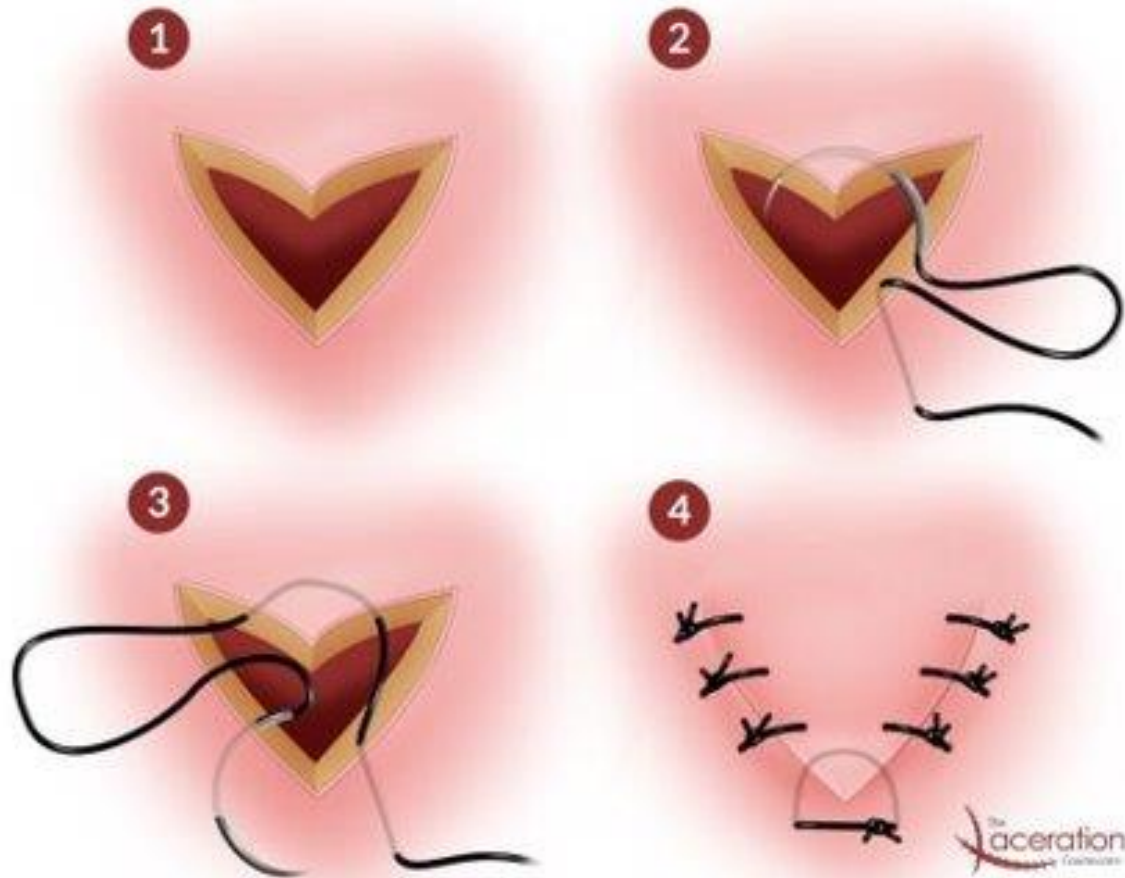
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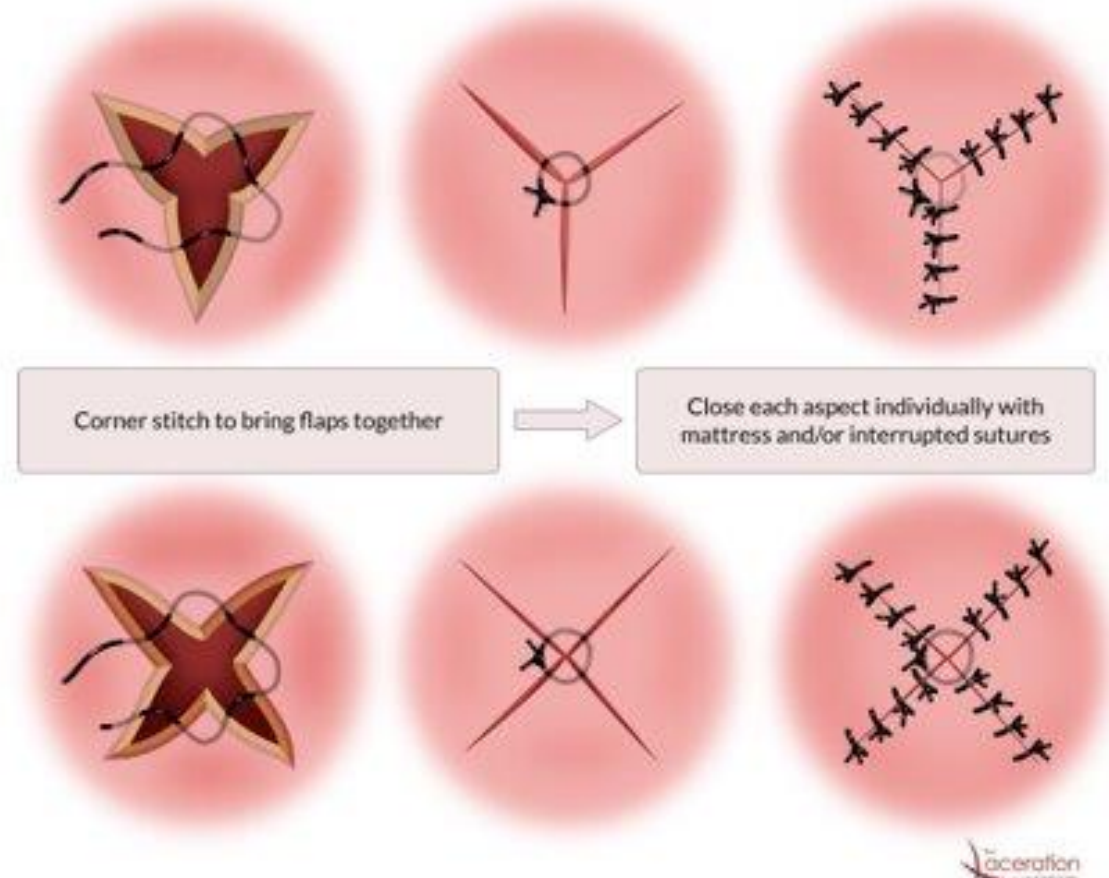


# Corner, V and Y shaped

## Corner Flap

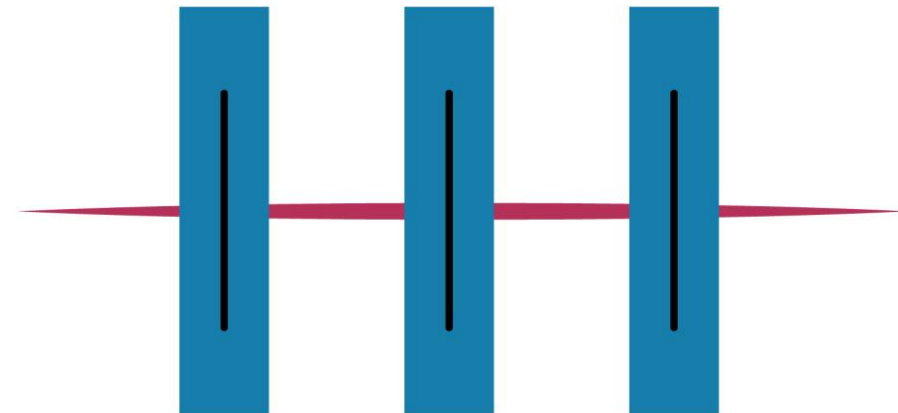
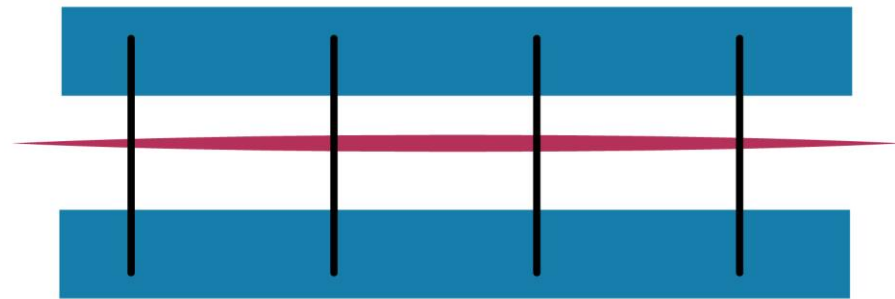


## Closing Stellate or Multi-Flap Lacerations



# Steri-strip/suture combo

- Skin tears
- Wounds under low tension
- Can combine with glue, sutures



# Large Skin Tear/Laceration

- Steri-strips, benzoin, horizontal mattress sutures



# Follow-up

- 2 week, 4 week, 6 month





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