

DRIVING **CHANGE2023**
THE URGENT CARE CONVENTION

UCA URGENT CARE
ASSOCIATION®



COLLEGE OF
URGENT CARE
MEDICINE

Urgent Care Management of Hand Injuries

Leah Herzog, MD and Alan Micev, MD
Hand Center of Nevada



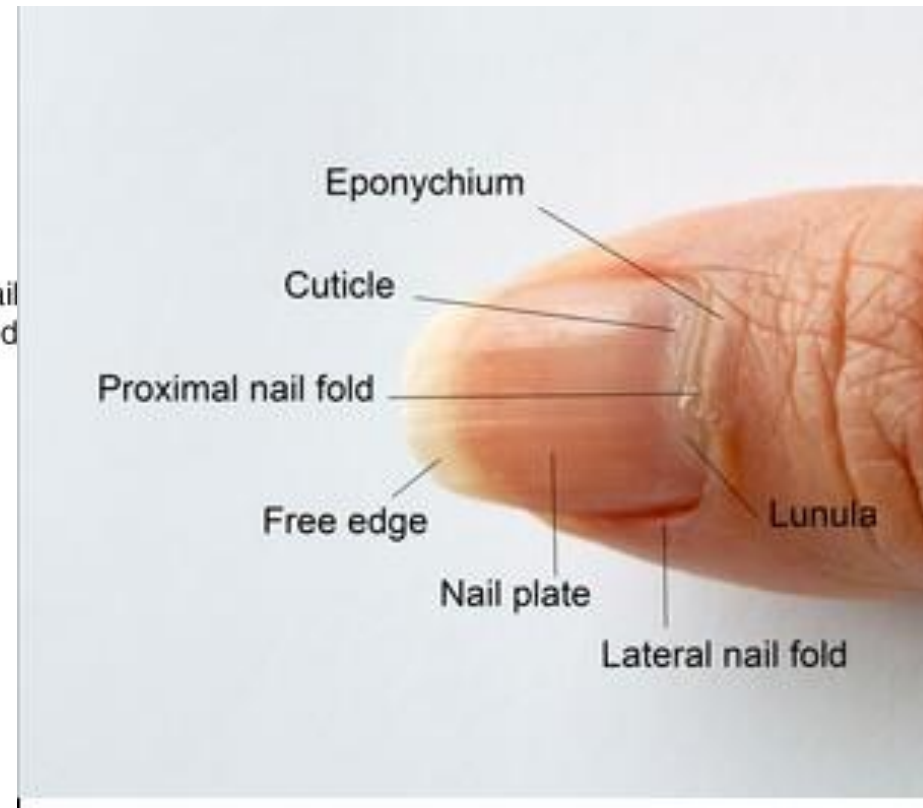
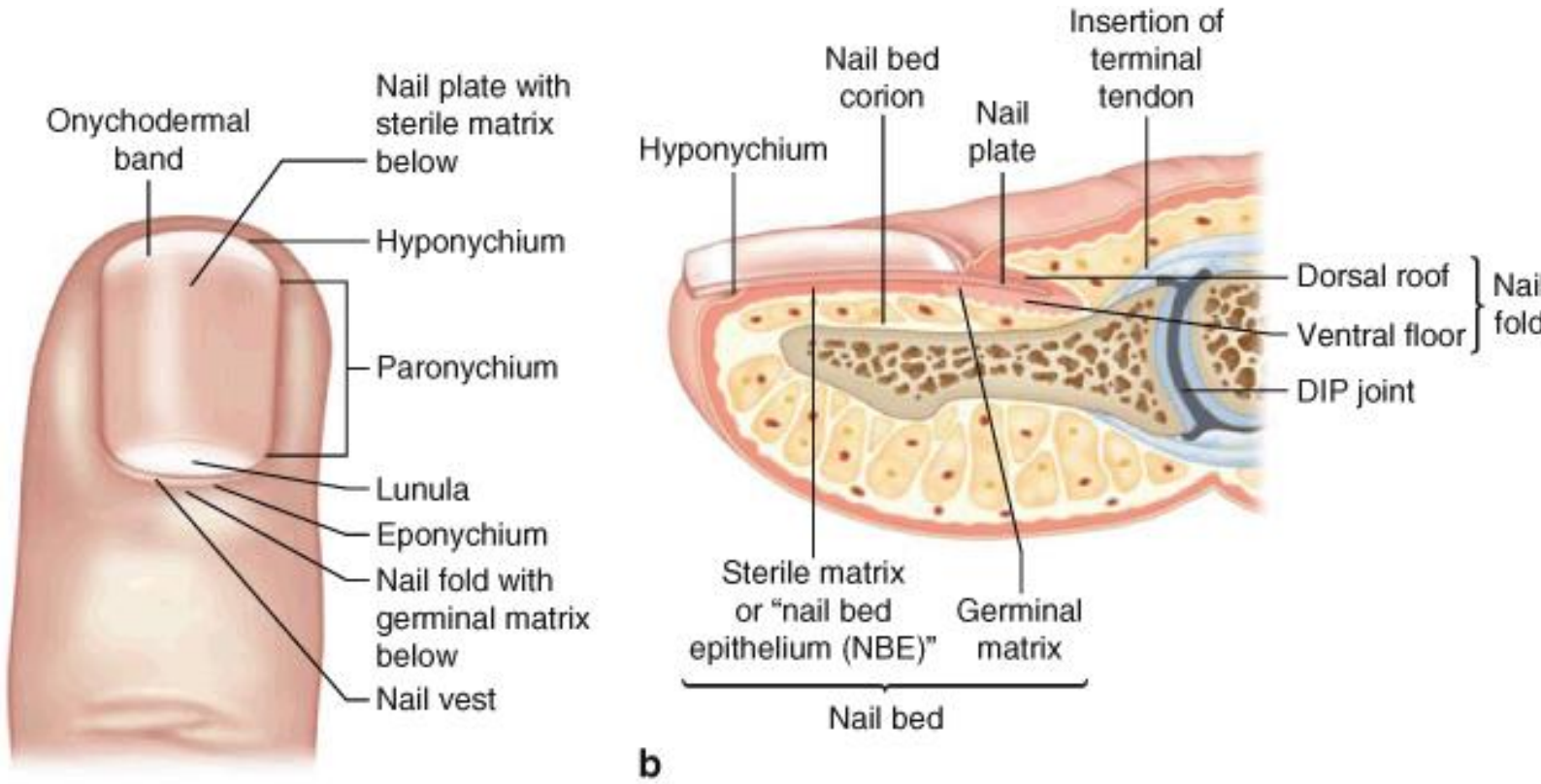
COLLEGE OF
URGENT CARE
MEDICINE

What We Will Cover

- Common Exam Findings
- Common infections
- Common injuries
- Fracture Care
- Procedures in the ED

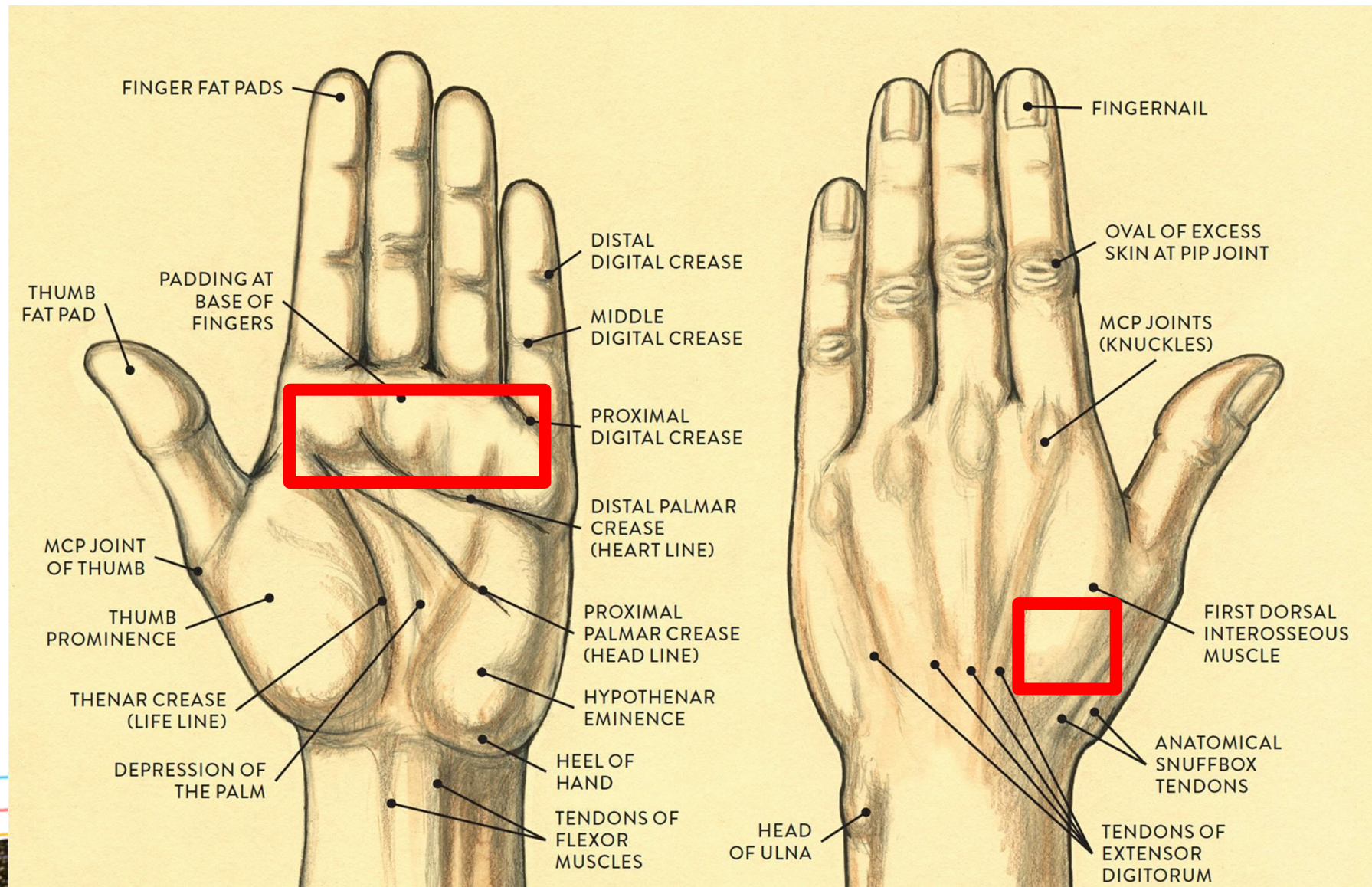


Nail Anatomy



shutterstock.com • 1897148773

Skin Landmarks

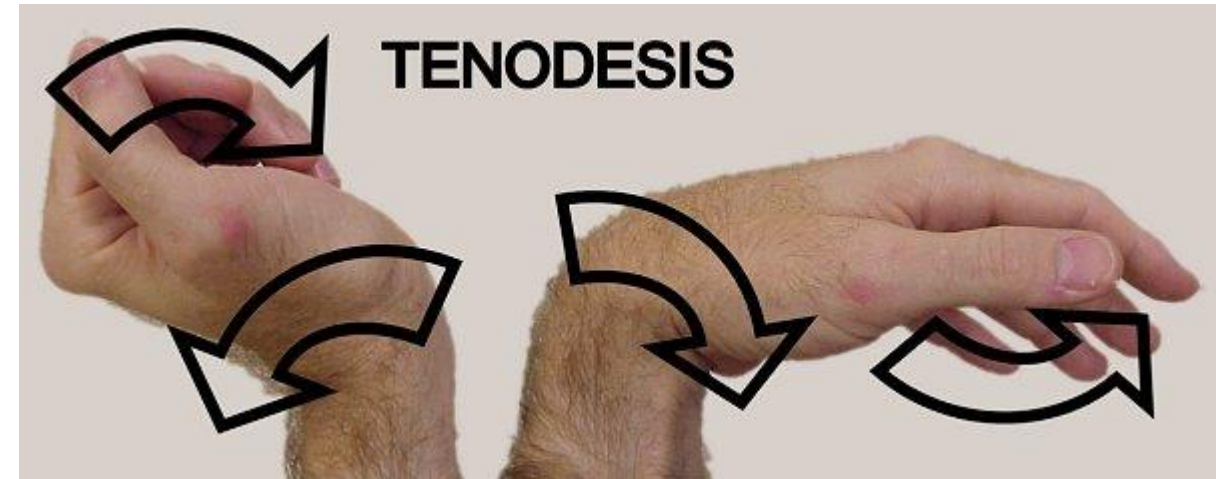


Tendon Injuries

- Cascade
- Squeeze the forearm

• Tenodesis!!!!!!!!!!!!

- FDP: Common muscle belly, flexes DIPJ so hold PIPJ and have indiv flex each indiv DIPJ
- FDS: Must stop FDP, so hold all other fingers in ext and ask them to flex



Infection Overview



- Paronychia
- Cellulitis
- Abscess*
- Flexor Tenosynovitis*
- Septic joint*

Paronychia



Cellulitis



- Rule out fluid collection (Exam, US, CT without contrast, MRI)

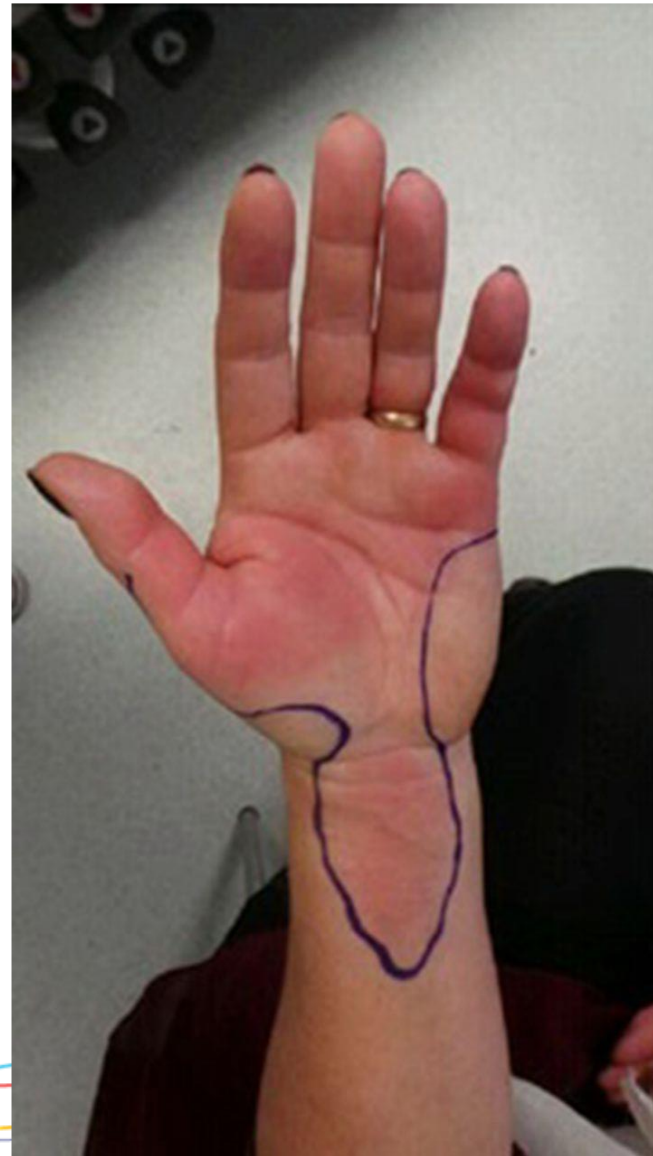
Abscess



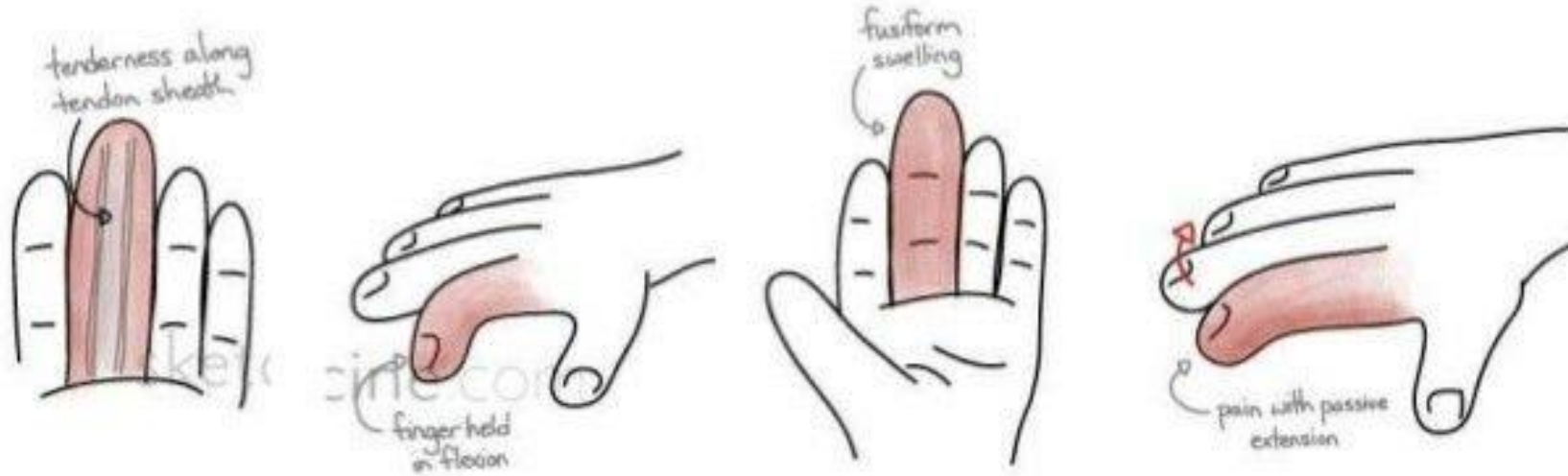
- Fluid collection
- Obvious abscess on exam



Horseshoe Abscess/Volar Abscess



DIAGNOSIS



- Tenderness over & limited to the flexor sheath
- Symmetrical enlargement of the digit ("fusiform")
- Severe pain on passive extension of the finger (> proximally)
- Flexed posture of the involved digit

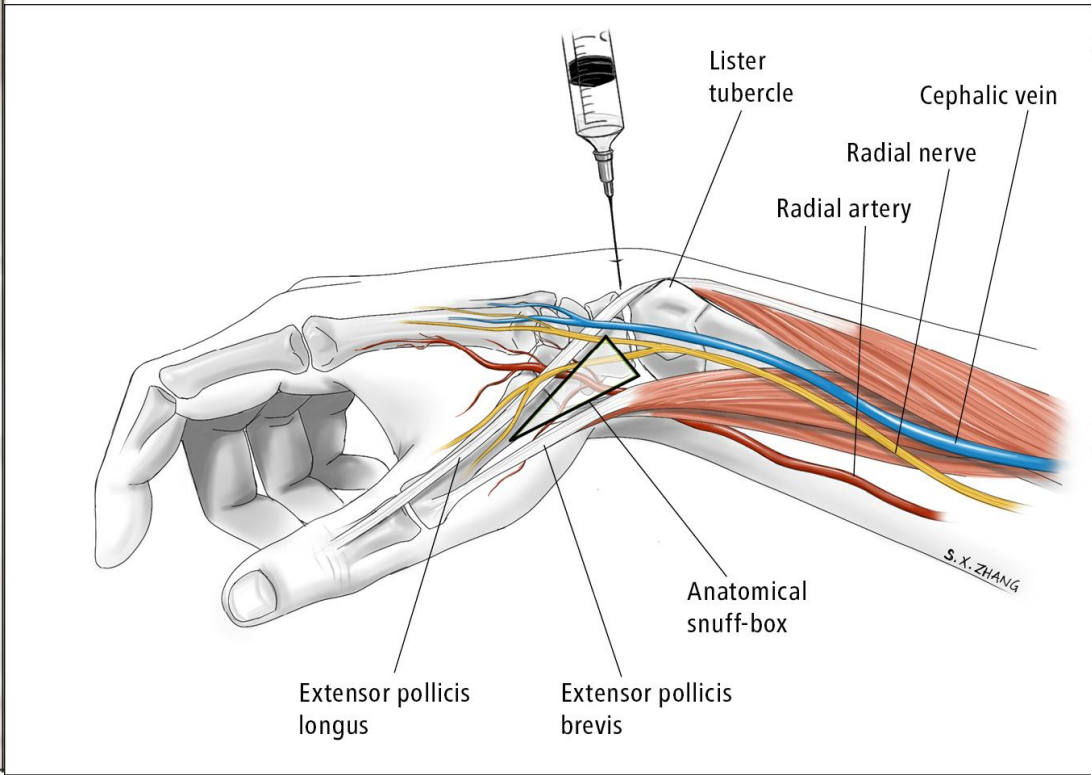
Kanavel's cardinal signs

Flexor Tenosynovitis



Septic Joint or Painful Joint

Injection



- CRP, ESR, UA, BMP, CBC with diff

Differential

- Gout



- Pseudogout

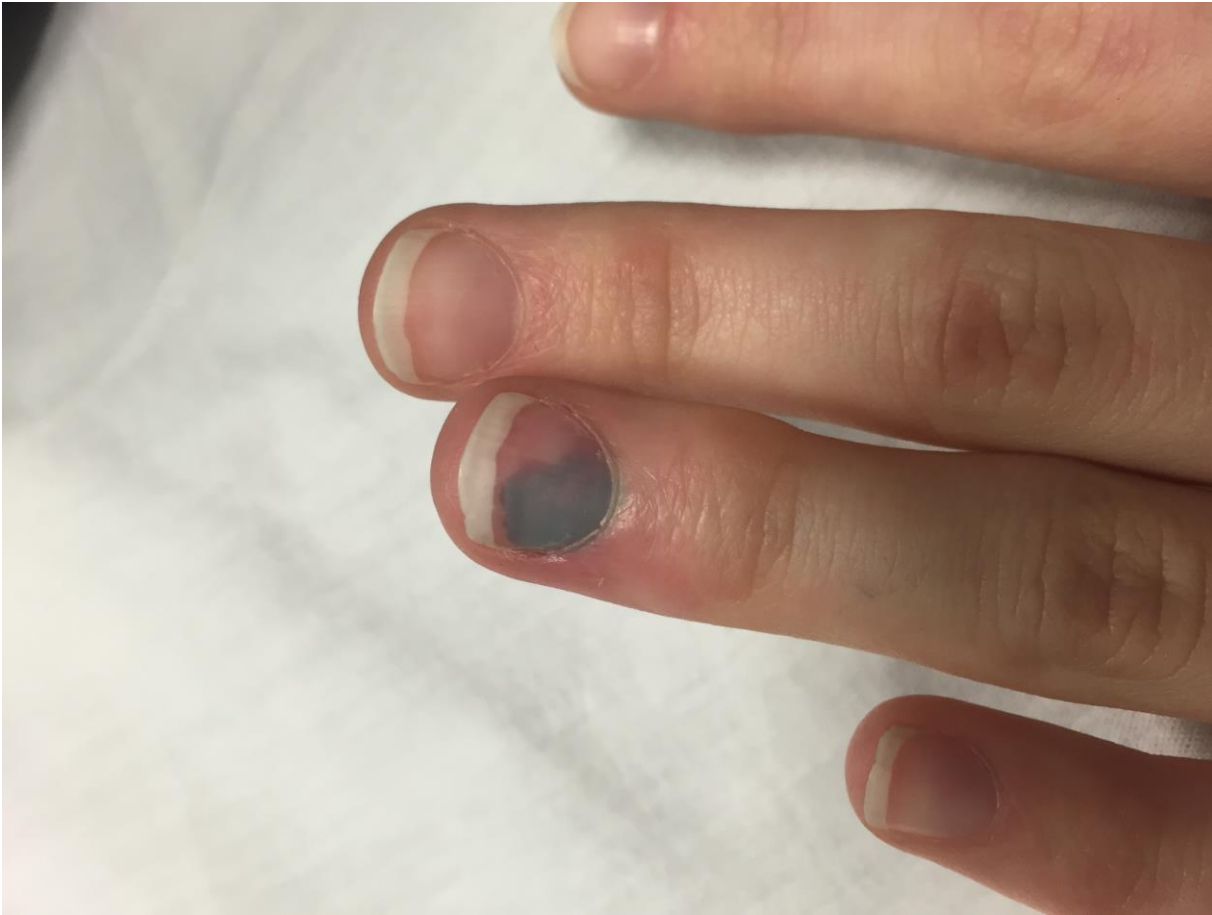


Common Injuries

- Subungual hematoma
- Lacerations
- Fingertip avulsions/crush injuries
- Complex Trauma*

“Blood under the Nail”

- Trephinate Nail plate



Lacerations

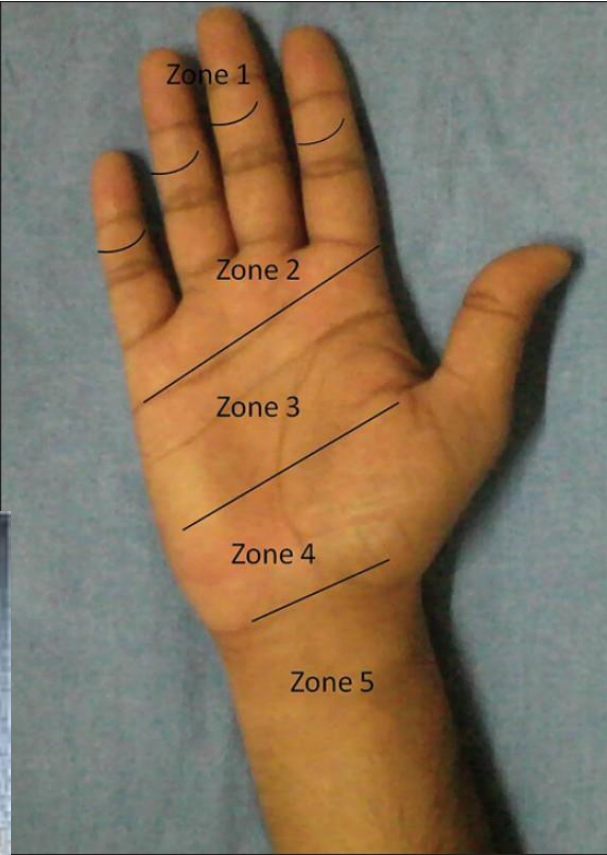
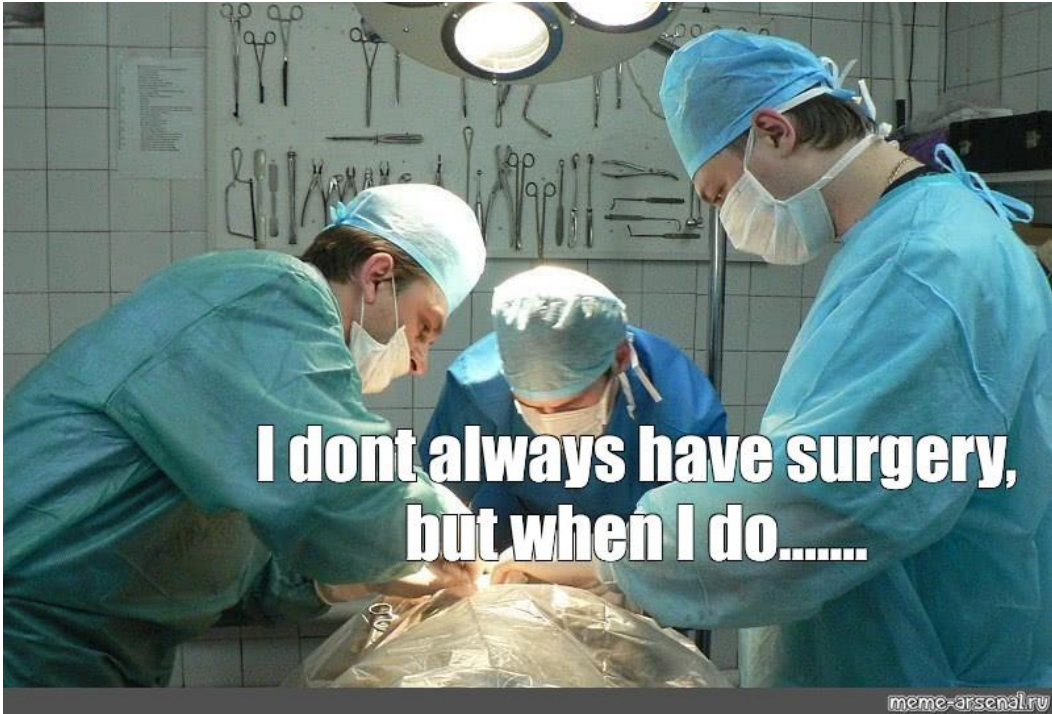
- Irrigation in ER
- Closure: 4-0 Nylon or 4-0 Chromic gut



Lacerations but nothing out on exam



Tendon injury



Fingertip Avulsion



- Even with exposed bone...just irrigate, bacitracin, xeroform or adaptec, wrap with alumifoam
- D/C on abx

Nail damage



- If there is damage to the nail plate, there is damage to the germinal matrix
 - Simple – dermabond
 - Complex – 6-0 chromic gut or plain gut
- Use nail plate as biologic dressing



Fractures

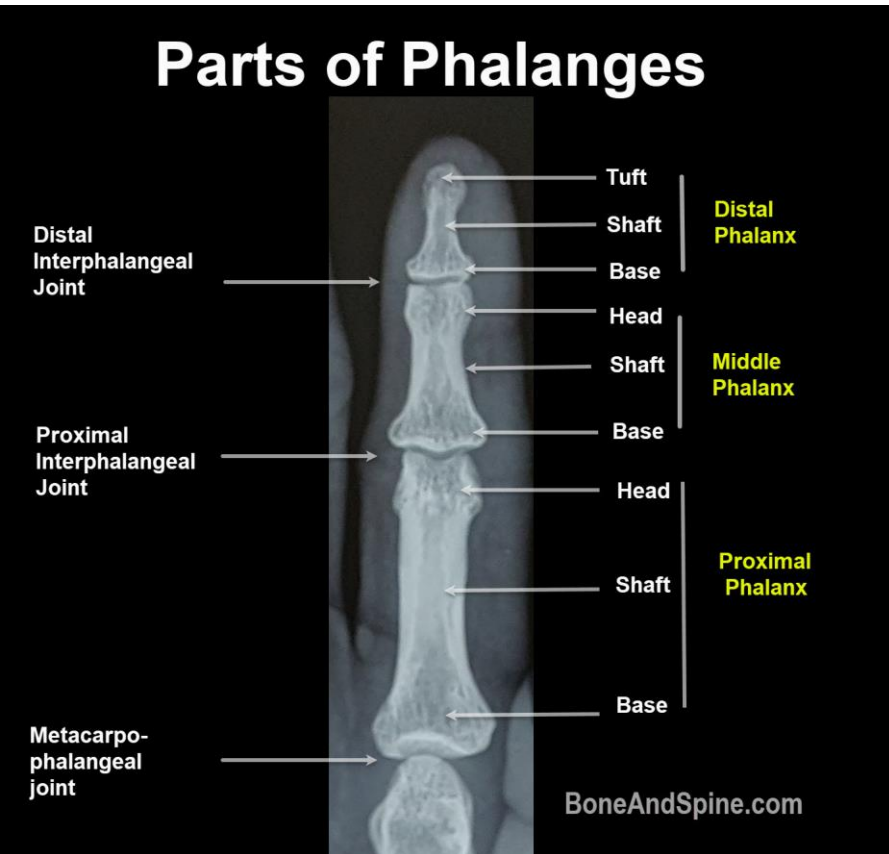


- Open fractures
- Irreducible dislocations
- Acute carpal tunnel syndrome

- Exam should include neurovascular status, clinical and radiographical exam of the joints above and below injury

Phalanx Fractures

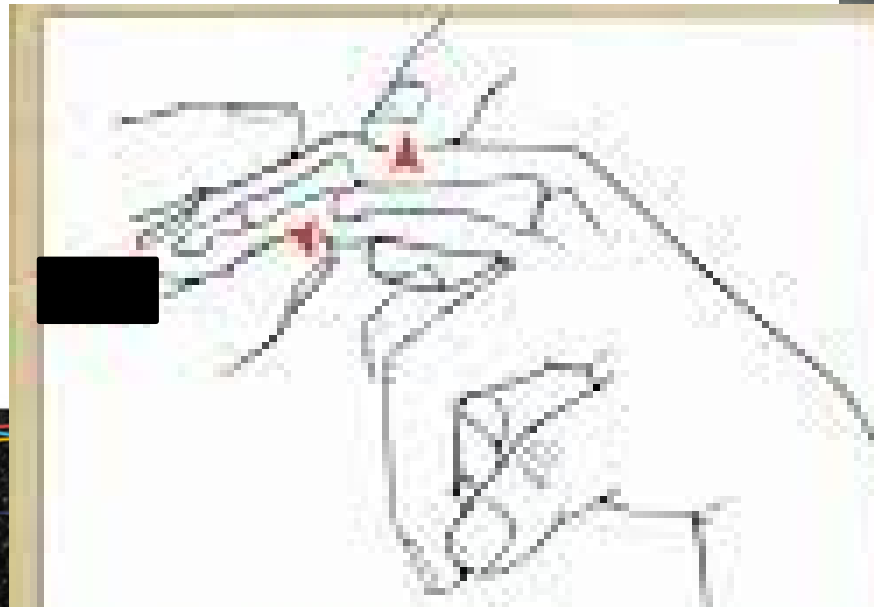
Parts of Phalanges



- Scissoring
- Intra-artic fx
- >10 deg angulation
- >2 mm shortening
- MALROTATION



PIP Joint Dislocation



Metacarpal

Acceptable nonoperative criteria

	Acceptable shaft angulation (degrees)	Acceptable shaft shortening (mm)	Acceptable neck angulation (degrees)
Index & Long finger	10-20	2-5	10-15
Ring finger	30	2-5	30-40
Little finger	40	2-5	50-60

- Open
- Intra-articular
- Rotational malalignment
- Sig displaced
- Multiple



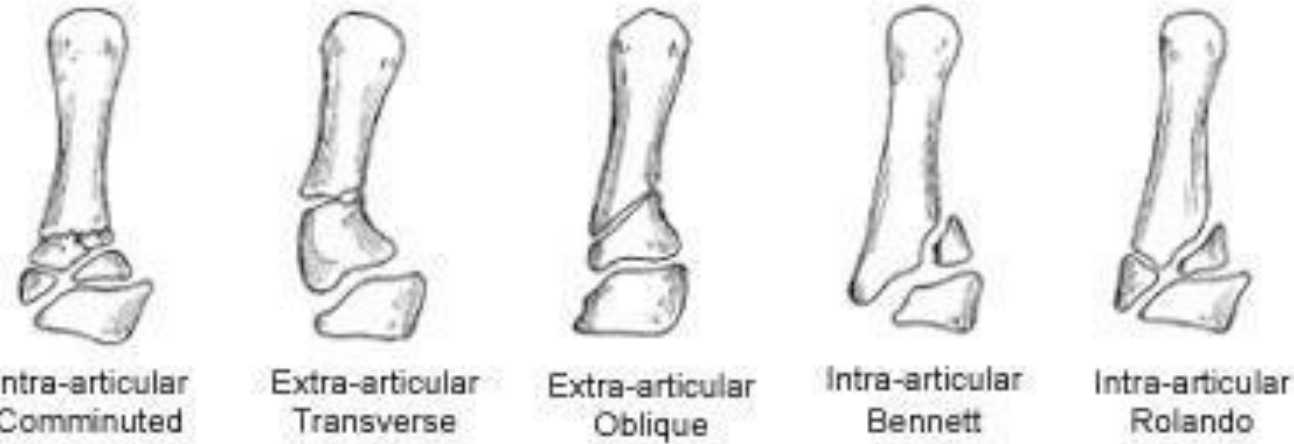
Boxer's Fracture



Base of Thumb Fractures



- >30 deg ang AFTER CR
- >1mm intra-articular stepoff



Distal Radius Fracture

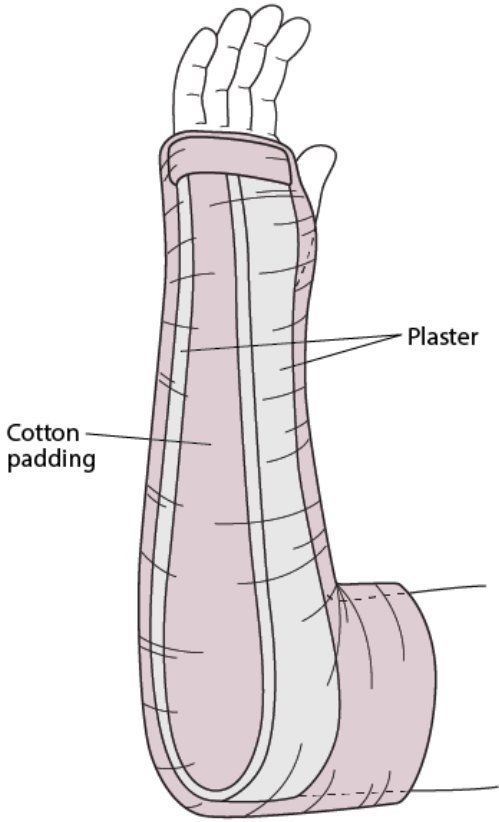


- “Instability”
- >5 deg dorsal ang
- >5 mm rad shortening
- >2mm intra-artic stepoff
- *Volar ulnar corner*
- Acute CTS



Peds: <10 yo can accept 15-20 deg angulation, 20 deg dorsal angulation

Splinting for Distal radius Fractures

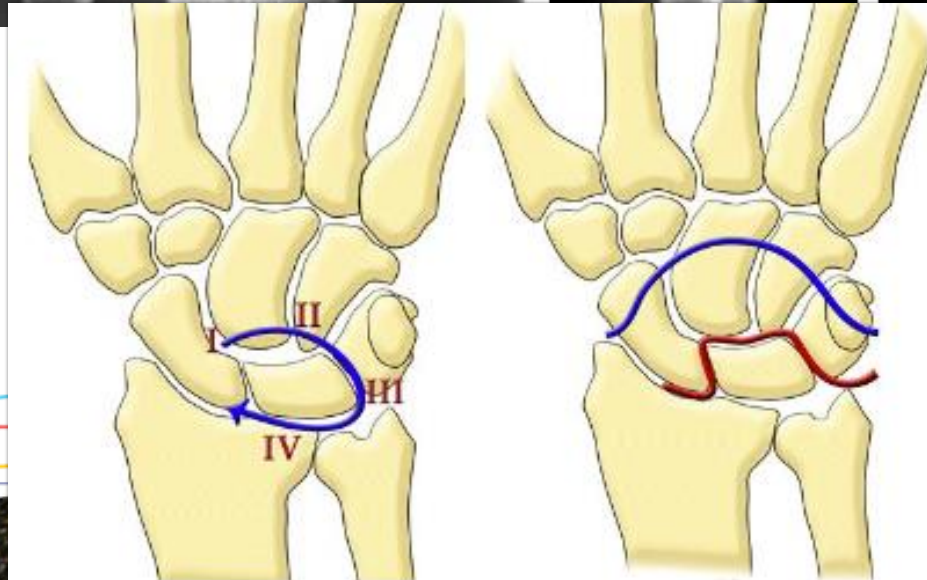


Carpal Fractures



- Scaphoid: Prox pole, >1mm displaced
- Triquetrum: displaced body fx
- Hamate: Most intra-artic and need ORIF
- Pisiform: nonop or excise later
- Trapezium: displaced frag in active ppl vs trapeziectomy

Perilunate



Mayfield Classification	
Stage I	Scapholunate dissociation
Stage II	+ lunocapitate disruption
Stage III	+ lunotriquetral disruption, "perilunate"
Stage IV	Lunate dislocated from lunate fossa (usually volar) - associated with median nerve compression

Unique Forearm Fractures



Forearm



Table of Acceptable Reduction (Tolerances)			
	<i>Angle (°)</i>	<i>Malrotation (°)</i>	<i>Bayonet Apposition</i>
0-10 years	<15	<45	Yes, if <1cm short
≥ 10 years	<10	<30	No
Approaching skeletal maturity (< 2y growth remaining)	0	0	No

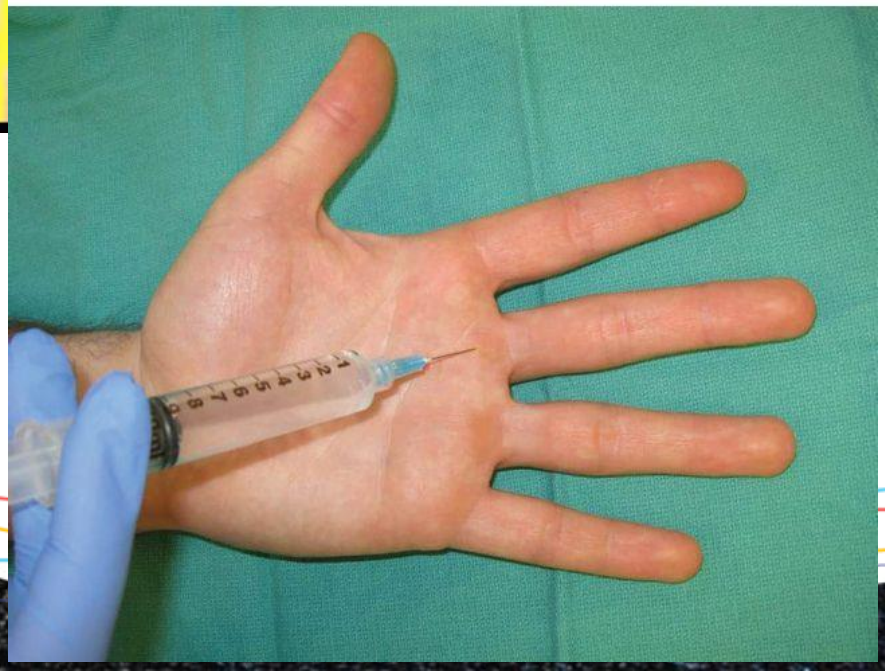
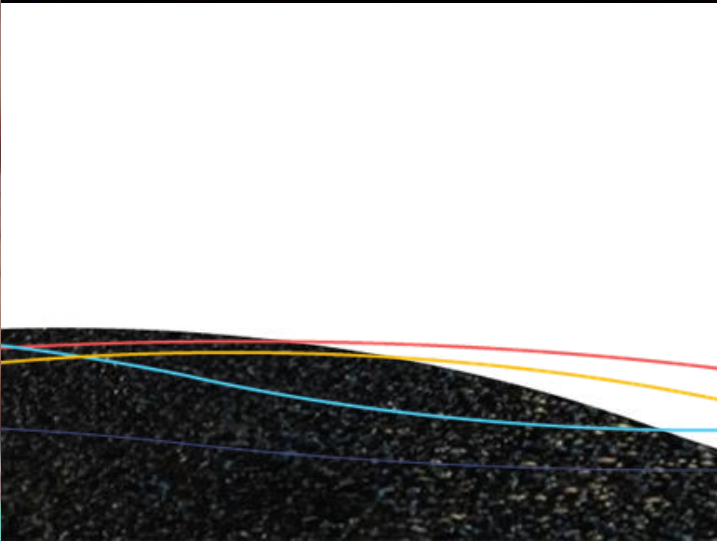
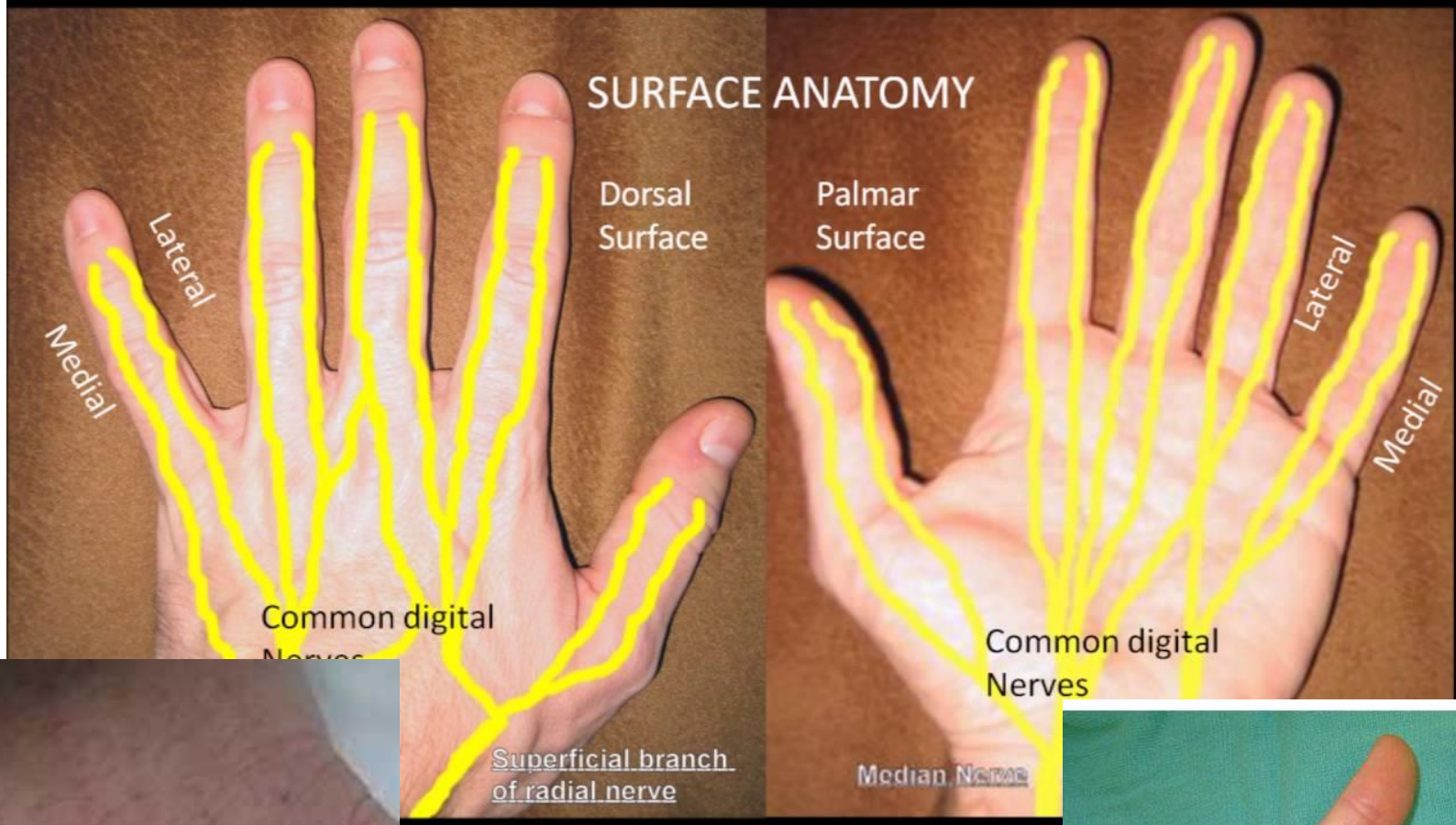
Adults: Fix. Radius is VERY important

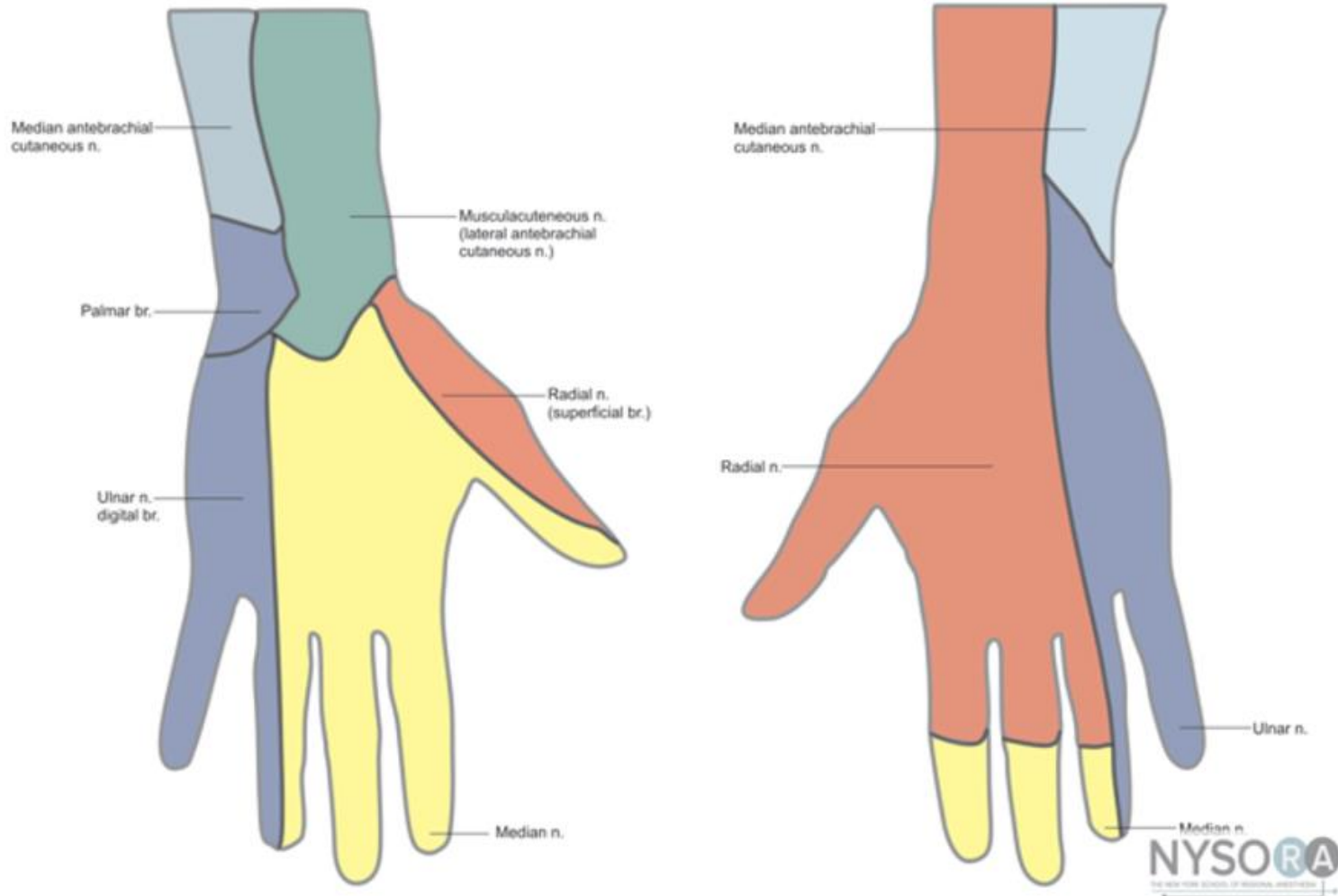
“Procedure Kit”

- Basin
- 500 cc saline bottle
- 2 boats 4 x 4
- Sterile gloves x 2
- Chloraprep or betadine
- 18 gauge needle, 22/23 gauge needle
- 10 cc syringe
- 1% lido WITHOUT epi/.25% Marcaine
- Tournicot
- Plastic surgery/facial lac kit
- 4-0 fast or chromic/6-0 fast or chromic
- Bacitracin, xeroform or adaptec
- Splint supplies (4 rolls 3 inch, 4 x 15 slabs, 2 4 inch ace, tape) and maybe alumifoam

- Irr
- Re
- La







Thank You



Some takeaways

- Basic

DRIVING **CHANGE2023**

Urgent Care Management of Hand Injuries: Cases



Alan J Micev MD

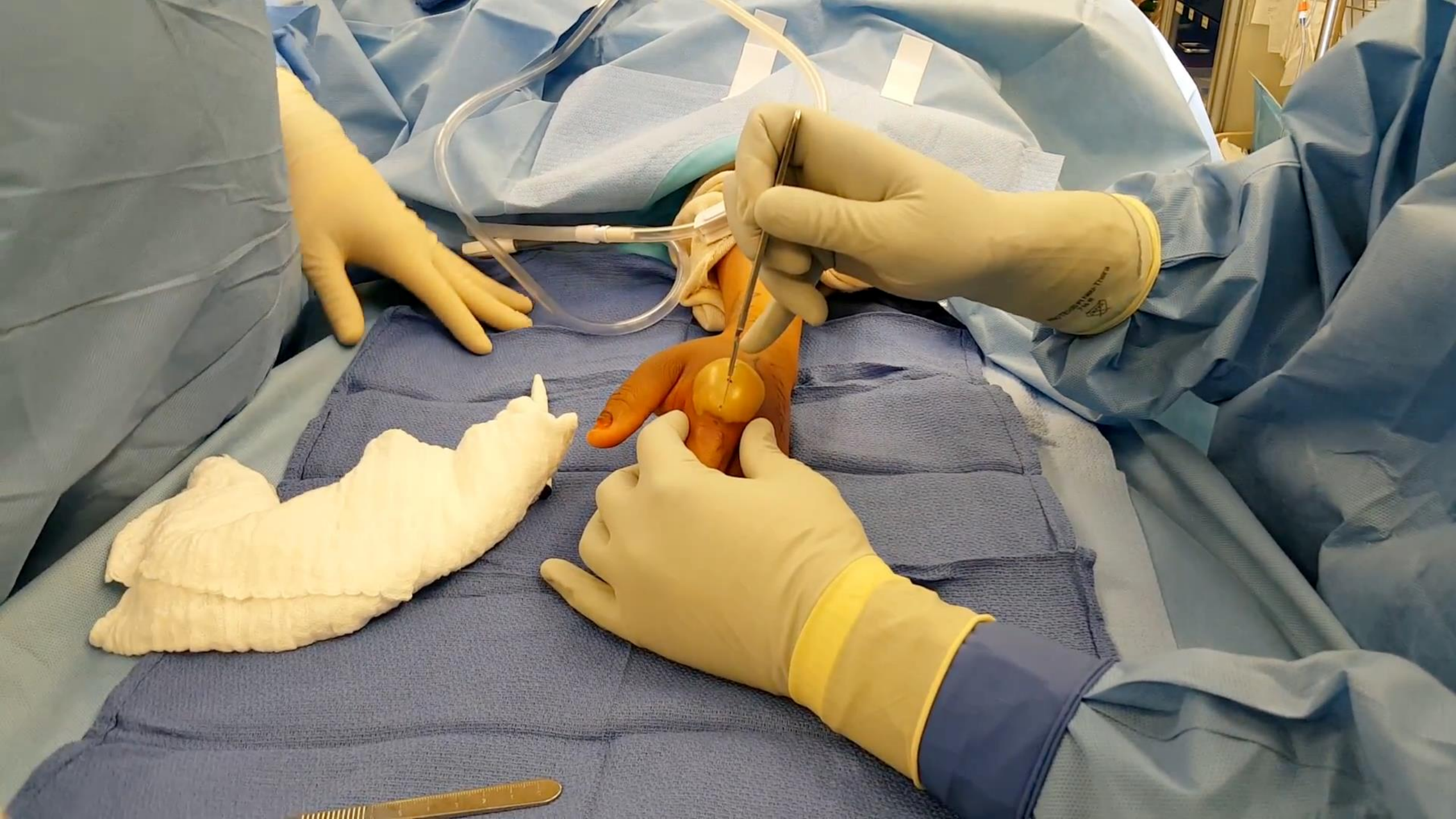
4/4/2023

Urgent Care Convention



*Comprehensive Upper Extremity Care from **Hand to Shoulder***



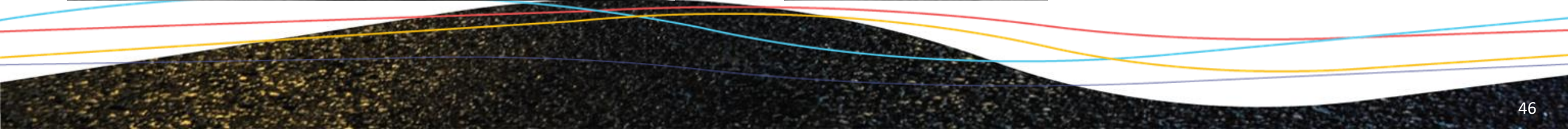


Case 1

30 yo M teacher jammed finger while playing softball 3 months ago



DRIVING **CHANGE** 2023
THE URGENT CARE CONVENTION

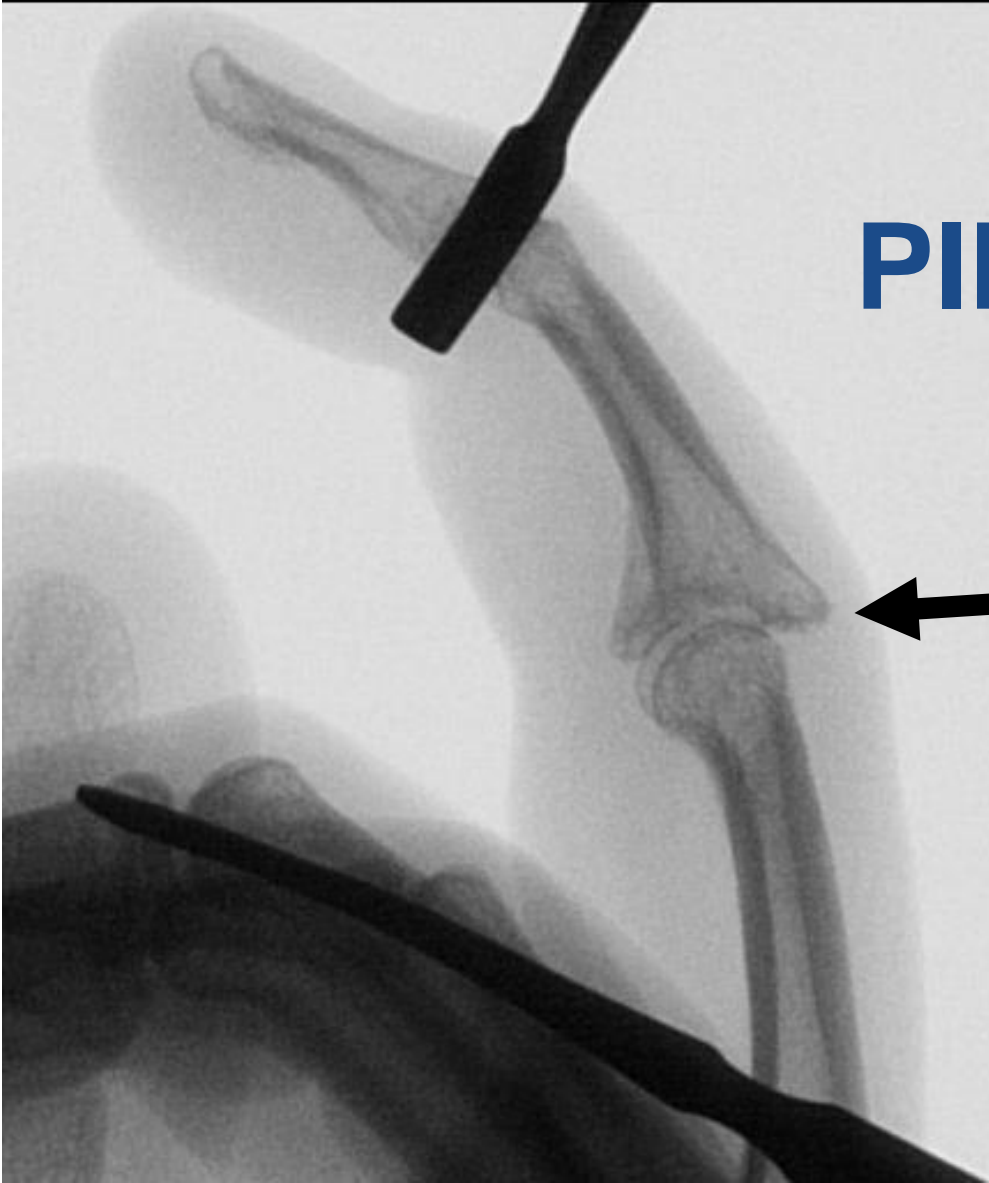


PIP Fracture Dislocation

Articular surface is dorsally dislocated!



Poor functional outcome when treated late



PIP Fracture Dislocation

Joint is reconstructed with hamate osteochondral autograft

PIP joint is concentrically reduced



Case 2

34 yo M referred for eval of wrist pain after fall while playing soccer. Injured wrist one month ago. Has severe numbness in hand and cannot move his fingers.



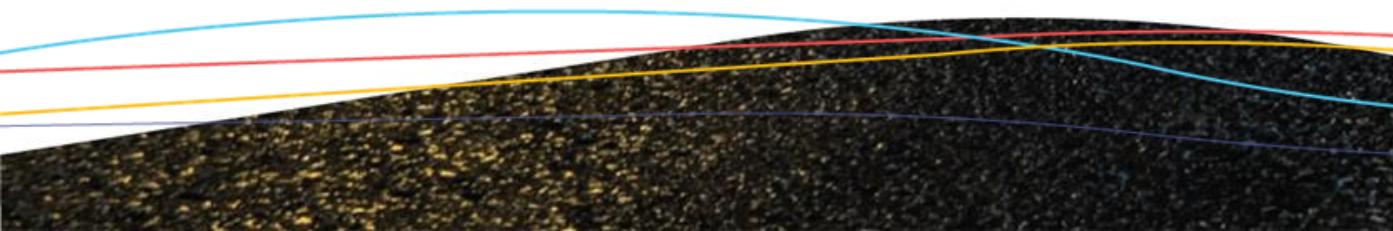
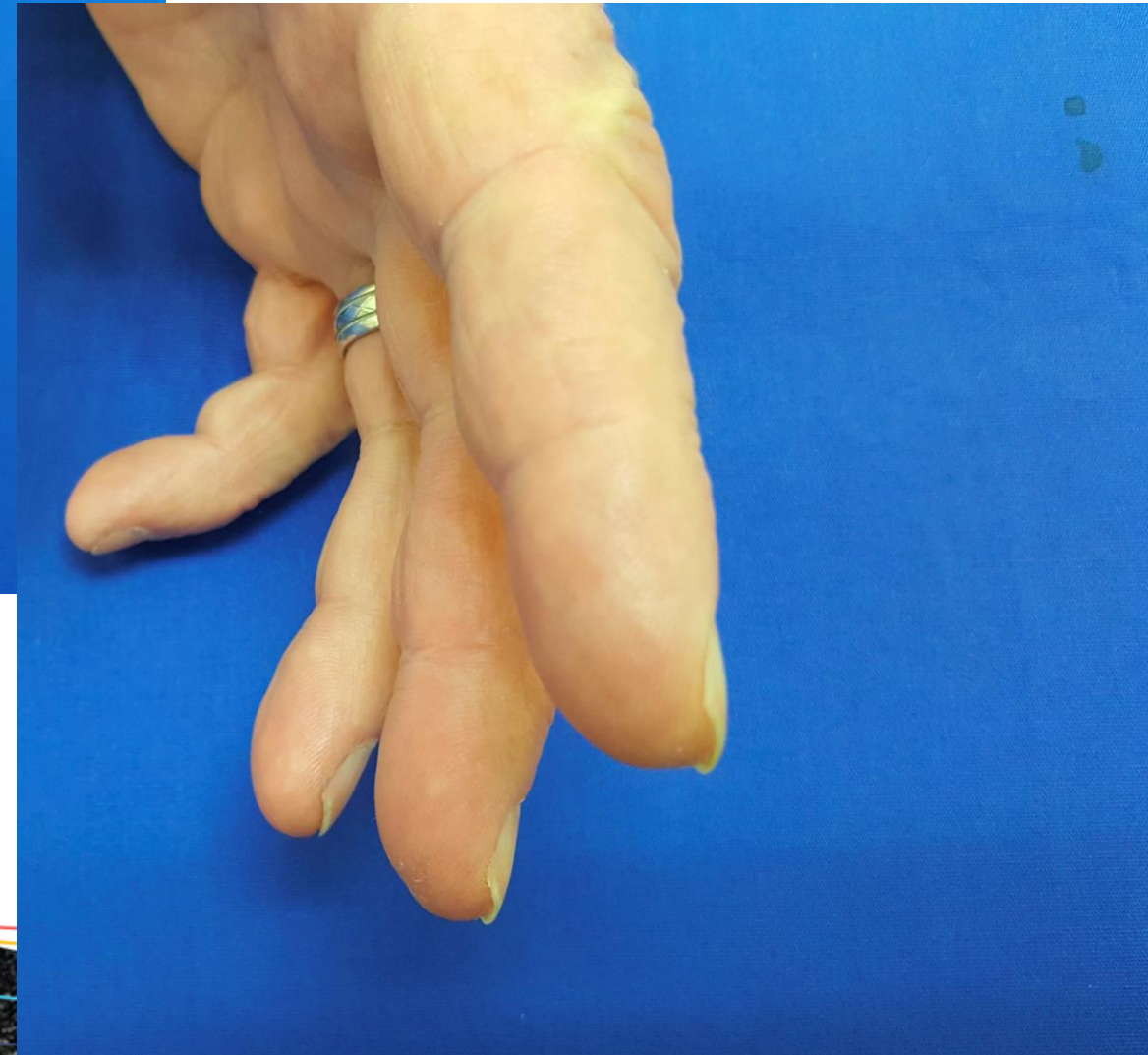




Case 3

75 yo M injured L IF and MF while using table saw at home. Has open distal phalanx fractures





Case 4

52 yo M in low speed MVC with wrist pain.





Default^20180103161836^^^
D:20180103161836



1+^20180103161836^^^
0161836



Case 5

64 yo M Diabetic presents with finger swelling for past 3 days after hand punctured with rusty screw driver.



Continued...

Patient diagnosed with cellulitis, admitted to hospital, wound care consulted.

Patient leaves AMA on first day of admission

He returns 2 months later...

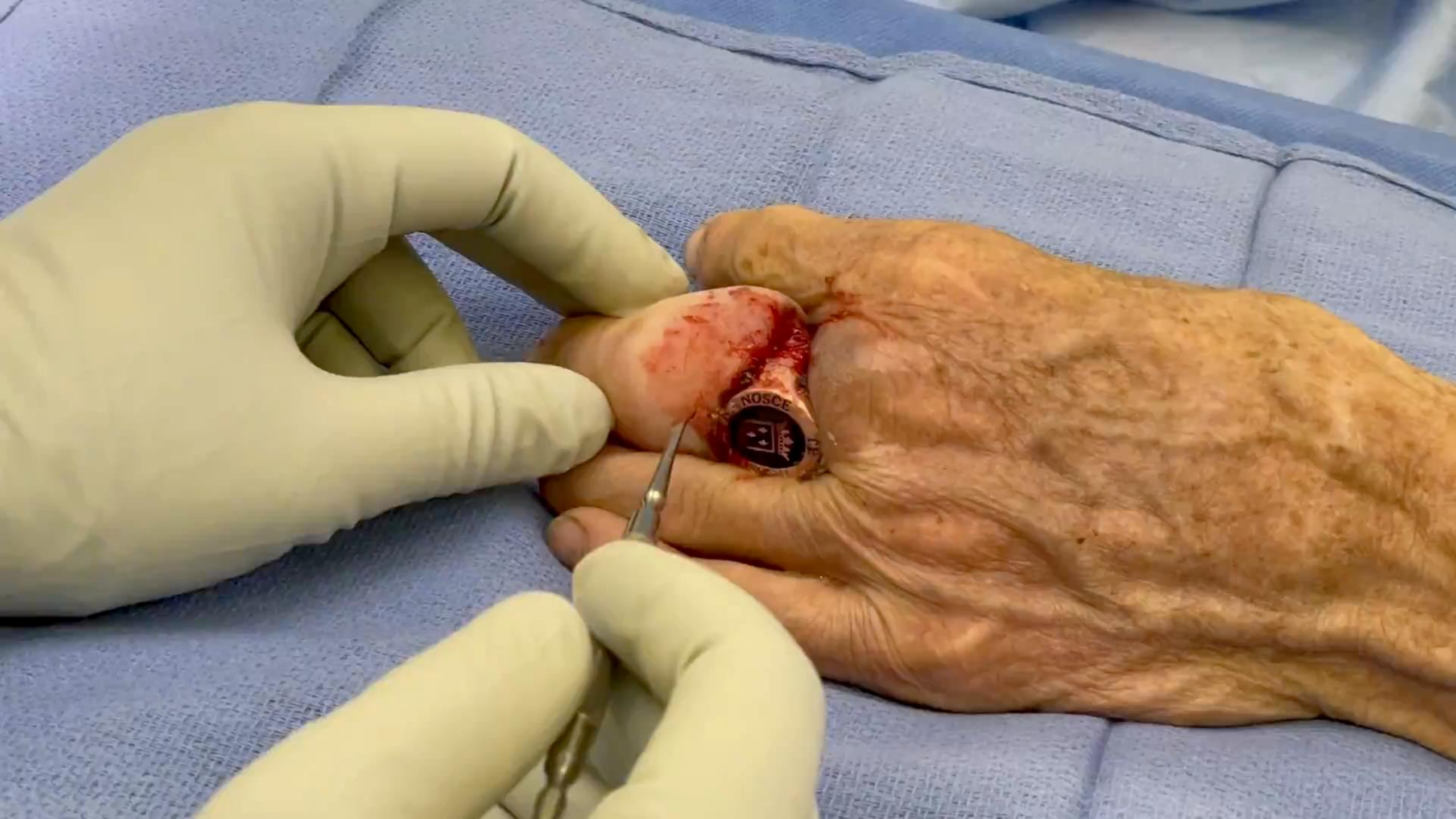


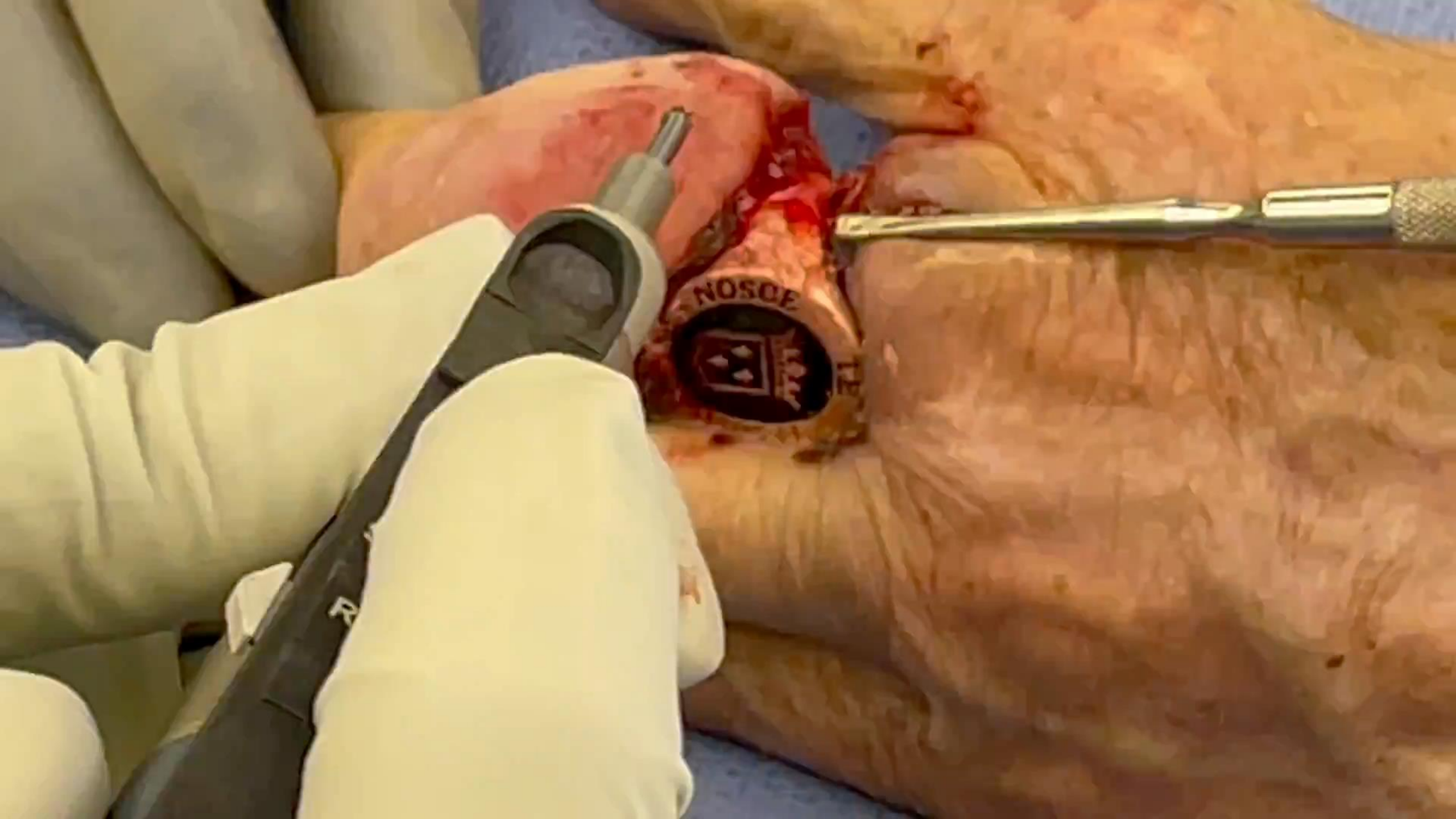




Case 6

Patient presents with ring that is too tight





Case 7

70 yo M presents with index finger pain and swelling for several weeks.





Session Evaluation

- Your feedback is valuable, take a moment to complete the survey for this session.
- To claim CME, you must complete a separate survey available after the convention.

* How likely are you to recommend this **content** to a colleague?

Not likely at all Neutral Extremely likely

0 1 2 3 4 5 6 7 8 9 10

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

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