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GP Education

Upper Limb

Night 2



Approved 40
Category 1
points

Welcome – Tonight's Agenda

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6pm	Dinner & Registration	
6.35 pm-7.10pm	<i>Diagnosing acute shoulder & elbow conditions</i>	Dr John Trantalís
7.10pm to 7.50pm	Arthritis & ligament disruptions - hand/wrist	Dr Jai Sungaran
7.50pm to 9.30pm	4 x 20 min Workshops—Split into 2 groups/switch	
8.40pm	Wrist Xray Workshop	Shoulder Workshop
	Reception area	Conference room
8.40pm to 8.50pm	10 min swap / break time	
8.50pm to 9.30pm	Taping, Splinting hand & wrist	Elbow Workshop
	Reception area	Conference room
9.30pm	Close	



Ligament disruptions and Wrist Arthritis

- Thumb
 - CMC Arthritis
 - UCL injuries
- Fingers
 - DIP arthritis and mucous cysts
 - PIP & MCP arthritis
- Wrist
 - Scapholunate ligament tears
 - TFCC tears
 - Wrist arthritis



THUMB CMC ARTHRITIS

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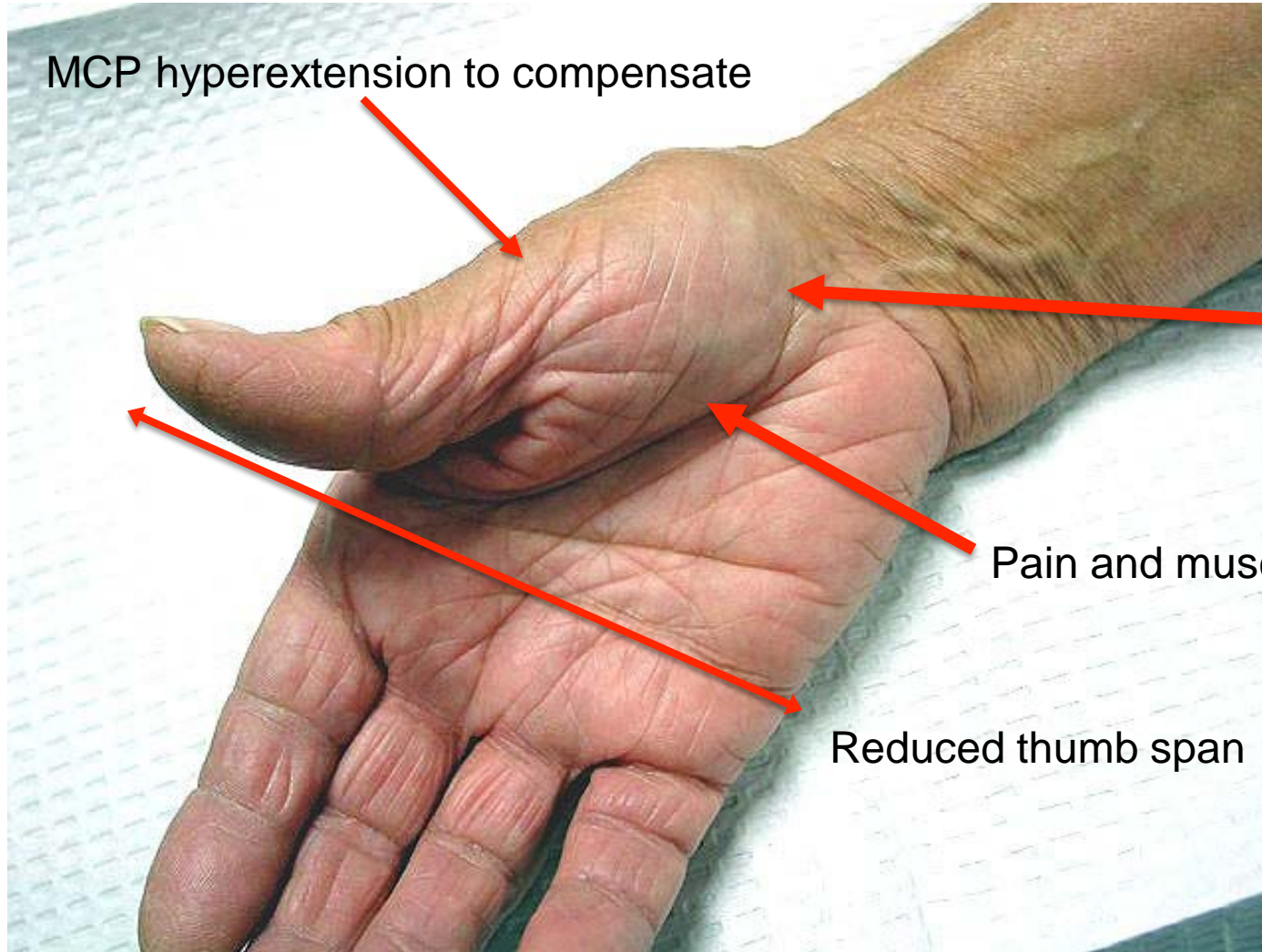
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MCP hyperextension to compensate

Thumb adduction

Pain and muscle wasting

Reduced thumb span



As a general guide....

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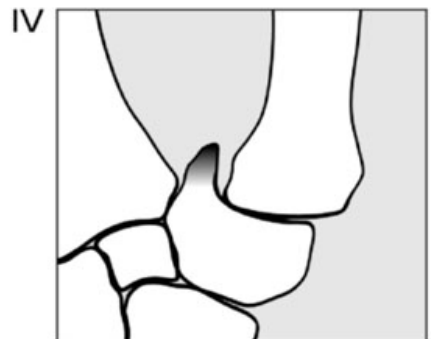
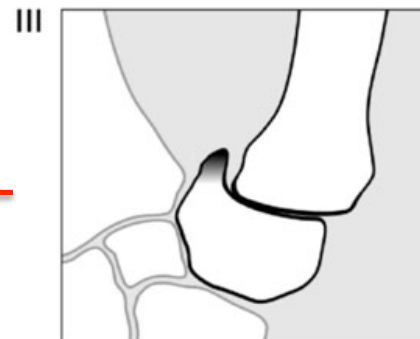
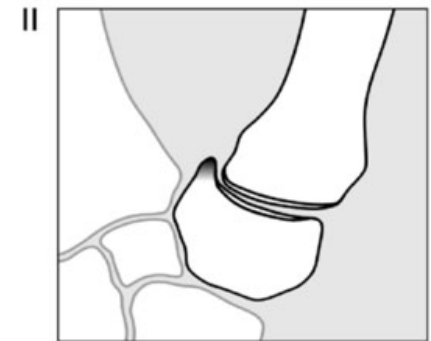
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“Short Opponens splint”



NORMAL



US guided cortisone injection



Injections & splinting



Surgery



THUMB CMC ARTHRITIS

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- Key points
 - Xray does not correlate with symptoms or disability
 - Injections and splints can still help if done properly
 - Surgery = Pain relief

TRAPEZIECTOMY

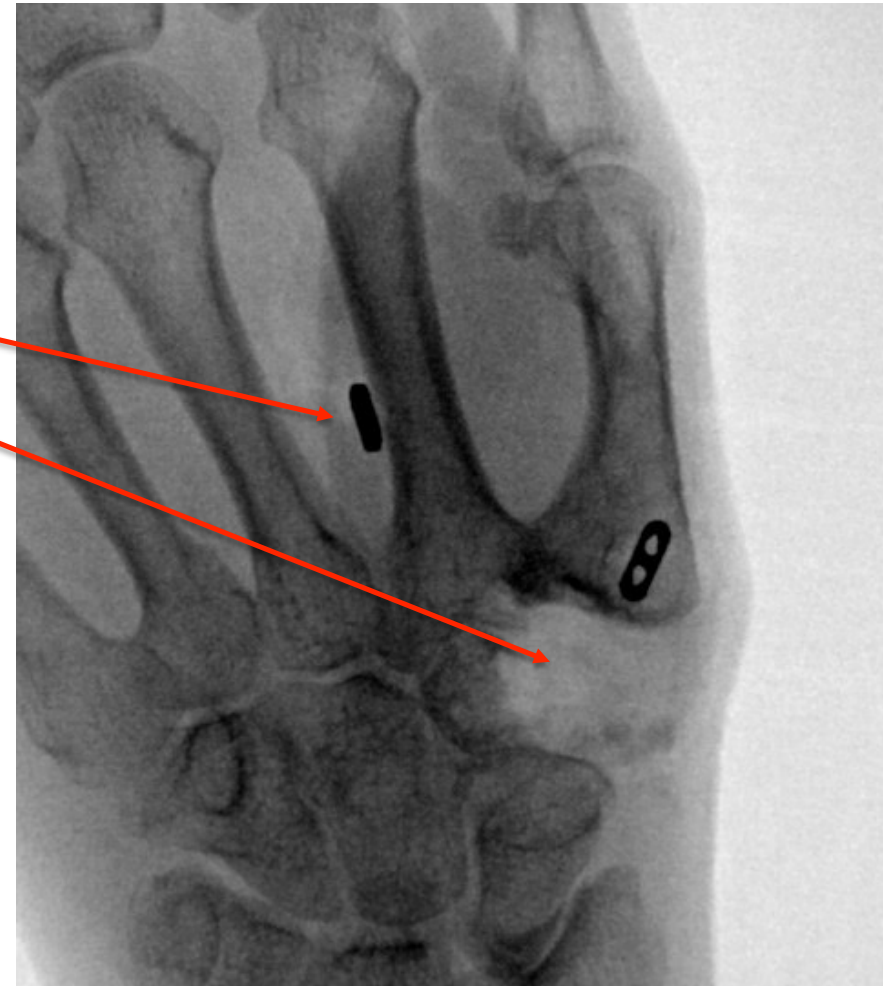
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- Trapeziectomy with button suspension
- Free space for articulation
- Prevents thumb migration
- Start moving within 2 weeks
- Splint removed at 4 weeks



Excellence in
sports injury management
and joint replacement surgery

POST OP DAY 12

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NEW OPTIONS

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- Pyrocarbon joint replacement
- Preserves bone
- Maintains height
- Some improved grip strength
- Intra-op decision



THUMB UCL INJURY

- Skier's thumb or Gamekeeper's thumb
- Axial and radial deviation force
- UCL & dorsal capsule
- Stener lesion



THUMB UCL INJURY

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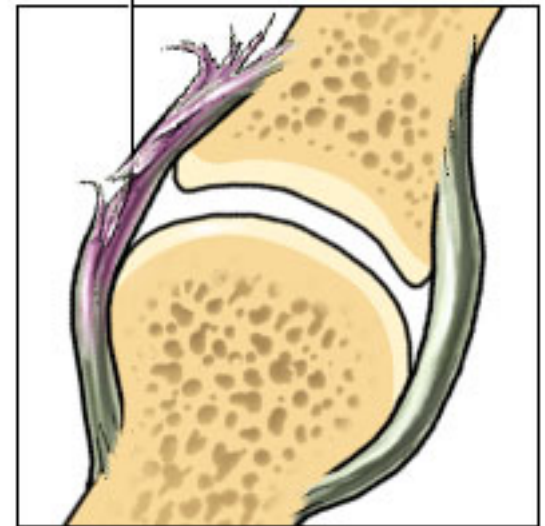


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- Partial rupture can be managed in a splint for 6/52 then test

Partial tear through the ligament



THUMB UCL INJURY

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HEALTH CARE
RAMSAY



THUMB UCL RUPTURE

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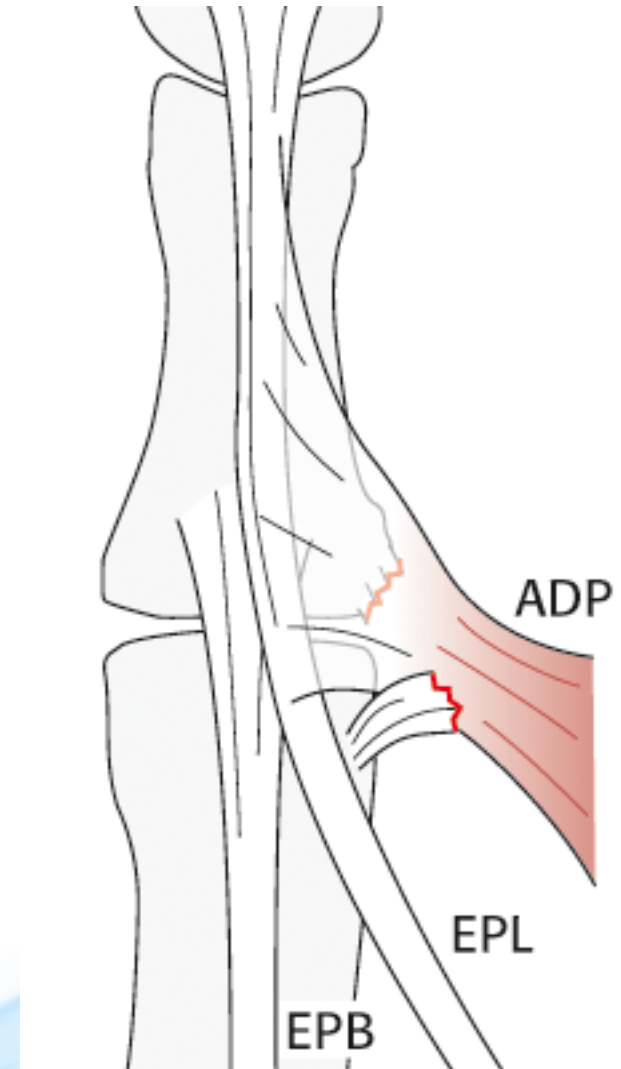
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- Stener lesion
- Complete rupture
- Delayed presentation



Surgery



sports injury management
and joint replacement surgery

PIP JOINT INJURIES

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- Volar plate fracture
- Collateral ligament rupture



Orthocentre

www.orthocentre.com.au

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and joint replacement surgery

PIP JOINT INJURIES

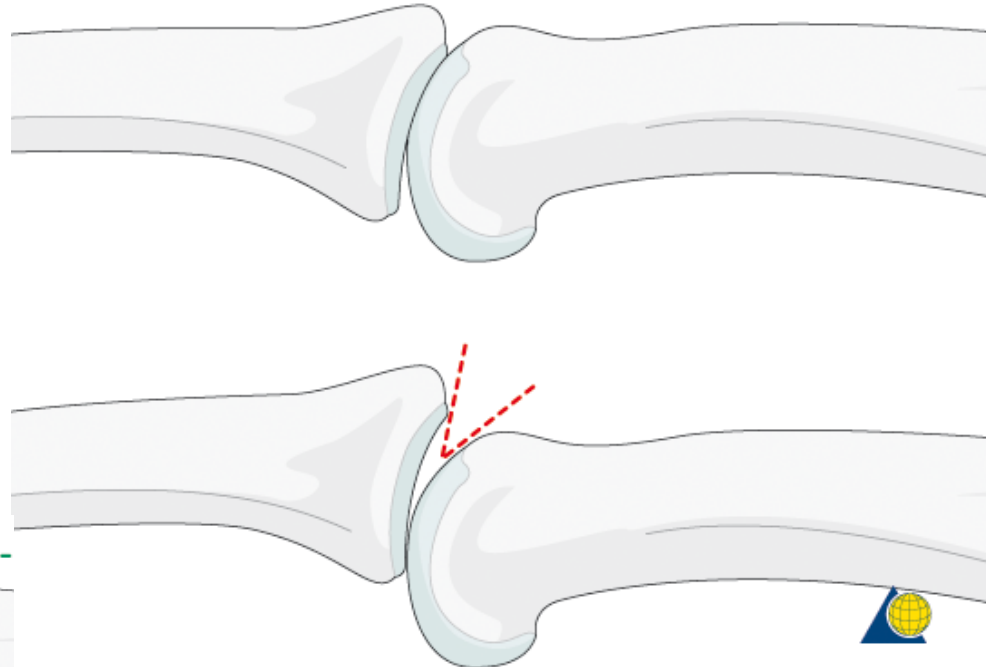
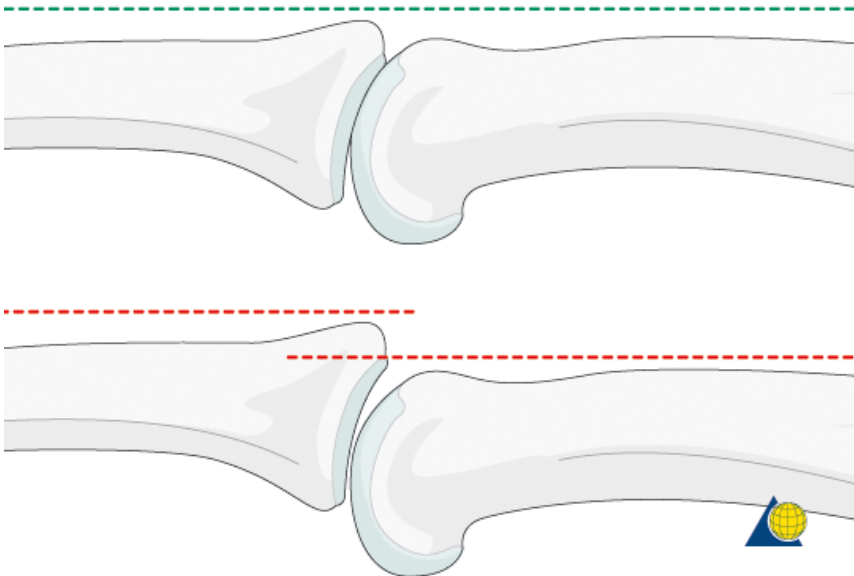
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- Recognising subluxation can be subtle



PIP JOINT VOLAR PLATE INJURY

- V sign
- $>1/3$ joint surface
- Ruptured collaterals

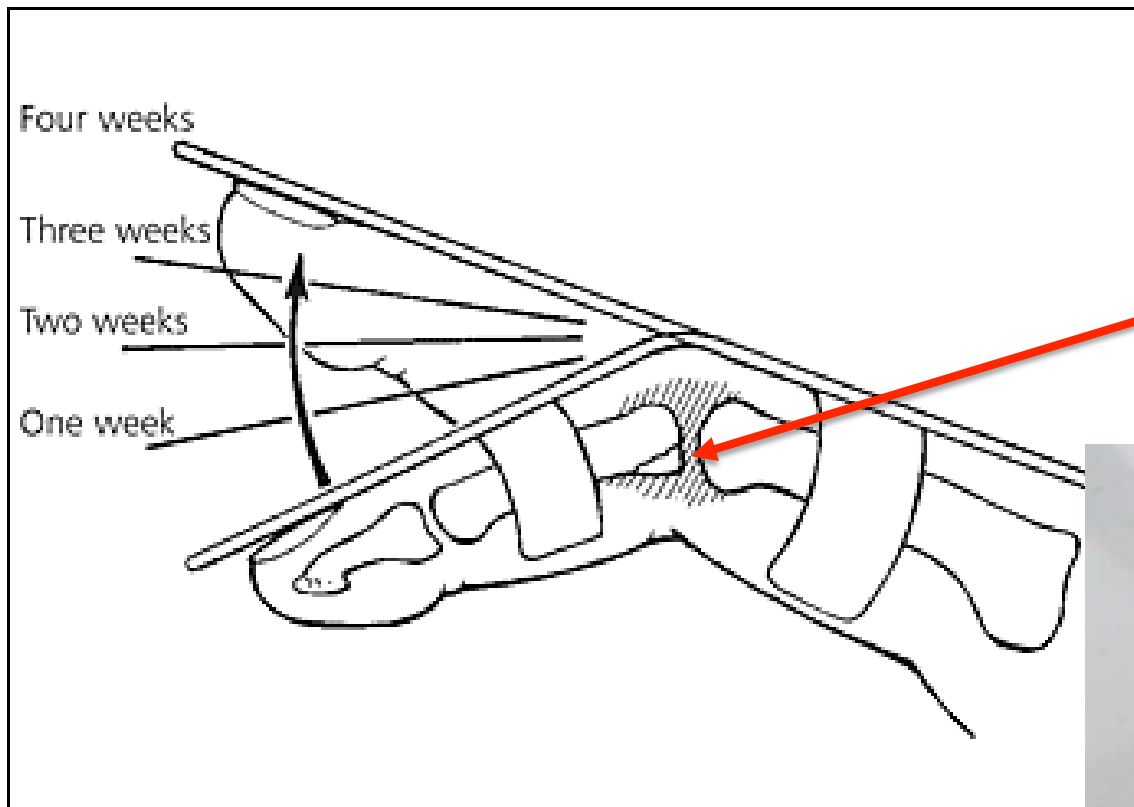


Surgery



PIP JOINT INJURIES

- Stable injuries can be splinted
- Dorsal blocking splint 3 weeks



Fragment approximated



PIP JOINT INJURY MISSED

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- Delayed injuries can lead to osteoarthritis
- Loss of flexion and grip strength



PIP JOINT INJURY MISSED

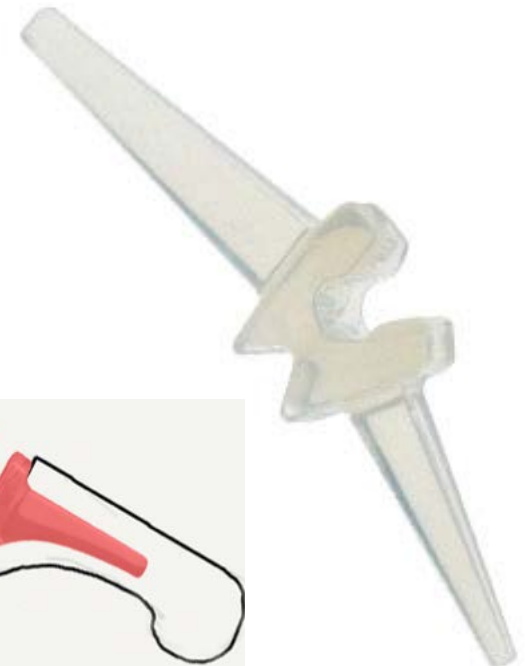
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- Joint replacement can salvage.... sometimes
- Fusion for young patients and border digits



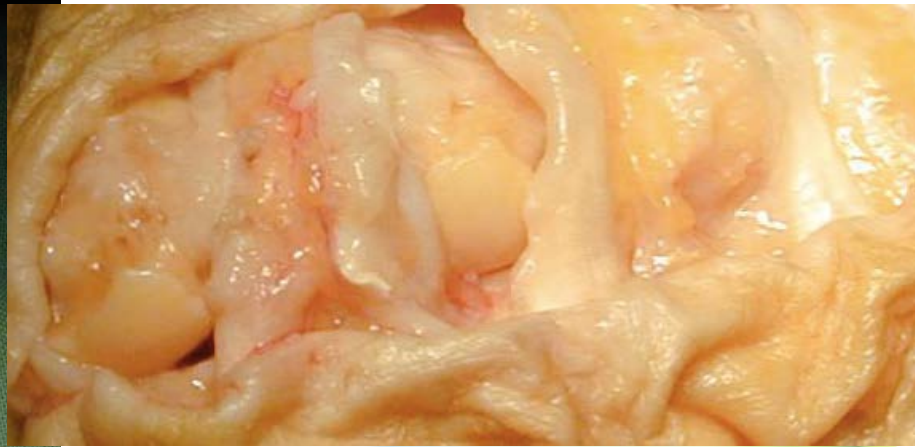
MCP Arthritis

- Traditionally RA but can be isolated OA joints.
- Ulnar drift
- Biologic DMARD eg: etanercept,

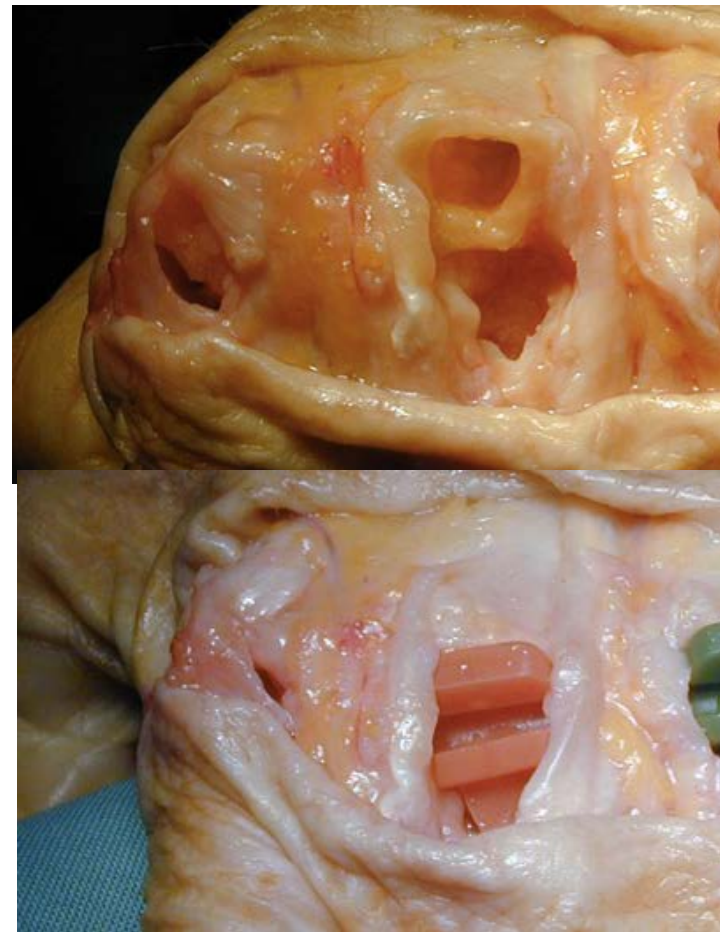


MCP Arthritis

- Joint replacement +/- tendon realignment
- “Easier” to replace all 4
- Hand Therapy is key



MCP Arthritis



SCAPHOLUNATE LIGAMENT

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- Commonly diagnosed as “wrist sprain”
- Pain on grip and twist
- Drills, wrenches, spanners
- Terry Thomas sign



SCAPHOLUNATE INSTABILITY

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- Pain +/- clicking in wrist
- Tender distal to Lister's tubercle
- Positive Kirk-Watson test (aka Watson's shift)
- Swelling/bruising
- Reduced ROM and grip strength

SCAPHOLUNATE INSTABILITY

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- Imaging
 - Xray >3mm gap diagnostic
 - Flexed scaphoid
 - Extended lunate
- MRI
 - Interosseous component is most important



ARTHROSCOPIC VIEW

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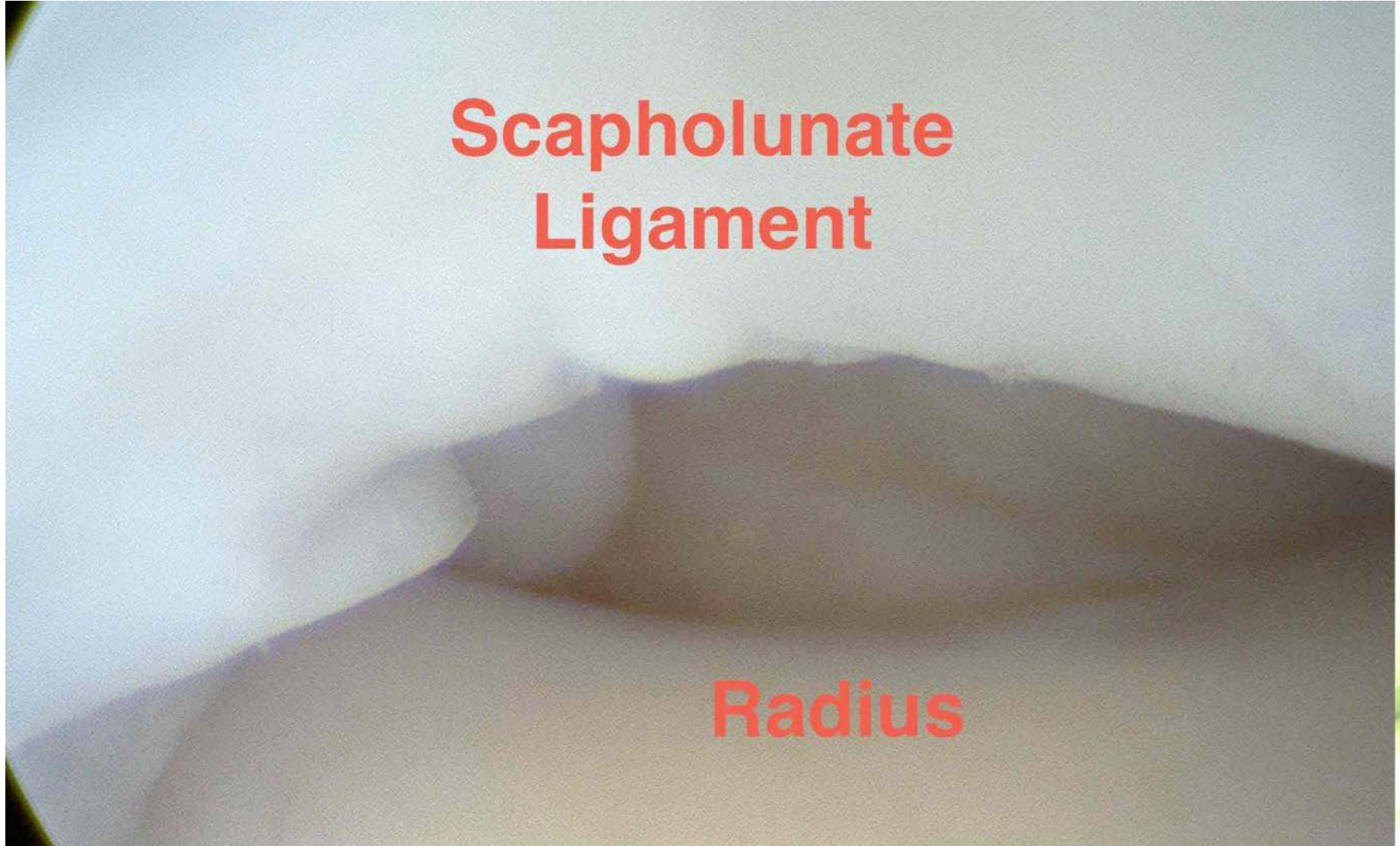


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HEALTH CARE
KVV12VA

**Scapholunate
Ligament**

Radius



ARTHROSCOPIC VIEW

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HEALTH CARE
KVVVVA



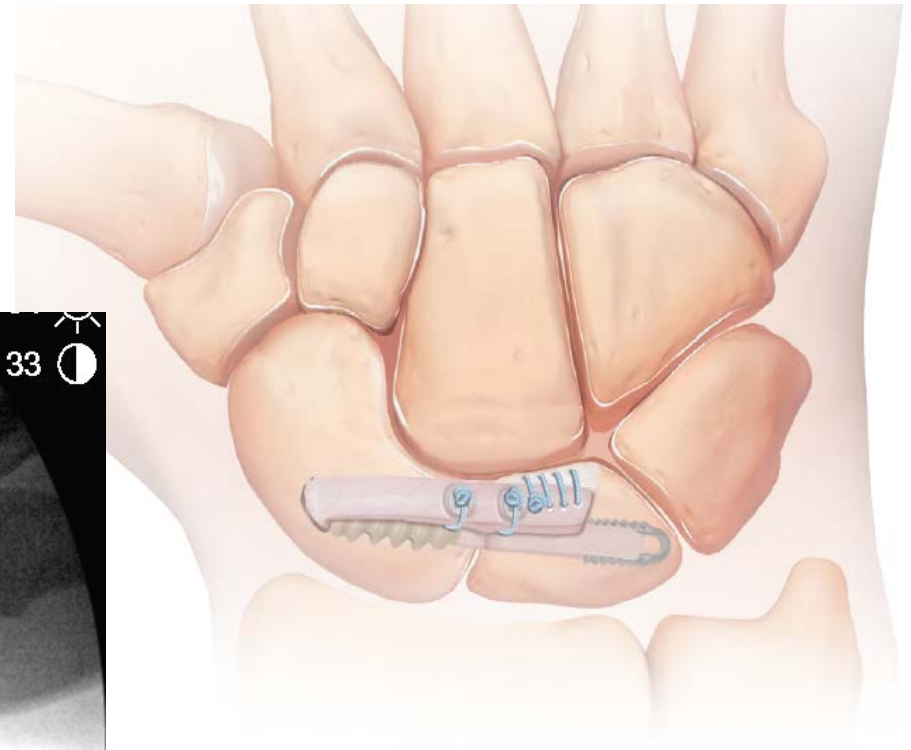
LIGAMENT RECONSTRUCTION

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HEALTH CARE
RAMSAY



LIGAMENT RECONSTRUCTION

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RAMSAY HEALTH CARE

- Restores interosseous component
- Reduces the incongruous movement
- Lowers chance of SLAC wrist
- Stiffness...

SLAC WRIST

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TREATMENT OPTIONS

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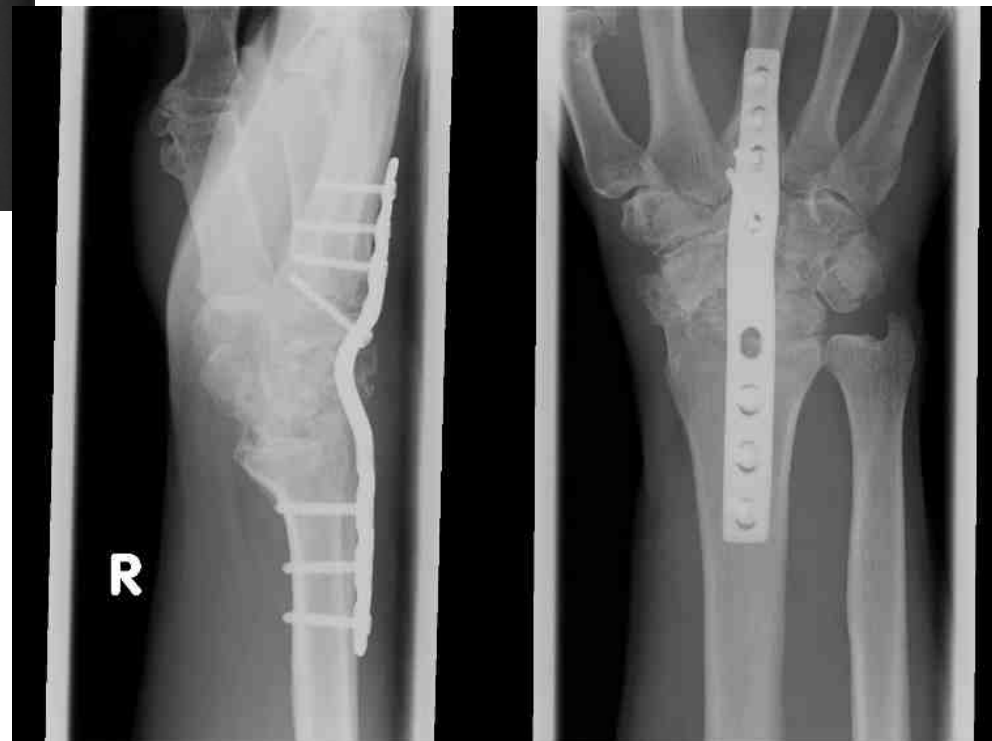
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Scaphoid excision and four corner fusion



Total wrist fusion



TREATMENT OPTIONS

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Radiocarpal joint replacement



Pain relief and motion preserving

Limitations to carrying capacity

10-15 years but newer designs are more promising



QUIZ Question 1

Early CMC arthritis can be best treated by

- A. Activity modification
- B. Regular simple analgesics
- C. Hand therapy and a short opponens splint
- D. All of the above



QUIZ Question 1

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Early CMC arthritis can be best treated by

- A. Activity modification
- B. Regular simple analgesics
- C. Hand therapy and a short opponens splint
- D. All of the above



QUIZ Question 2

22yoM Fell at soccer on right thumb. Painful swollen MCP joint

- A. UCL injury & likely Stener lesion. Refer to Hand Surgeon
- B. Sesamoid fracture. Can use it immediately
- C. UCL injury. Cast for 6 weeks then physio
- D. Avulsion fracture. Immobilise for 4/52



QUIZ Question 2

22yoM Fell at soccer on right thumb. Painful swollen MCP joint

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QUIZ Question 3

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This fracture of the PIP joint

- A. Must be splinted in extension for 6 weeks
- B. Will require surgical management
- C. Does not require splinting
- D. Dorsal splint at $\sim 30^\circ$ flexion and gentle ROM



QUIZ Question 3

This fracture of the PIP joint

- A. Must be splinted in extension for 6 weeks
- B. Will require surgical management
- C. Does not require splinting
- D. Dorsal splint at ~30° flexion and gentle ROM



QUIZ Question 3

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- Look at the difference with this fracture.
- Joint incongruent
- Fragment >30%



QUIZ Question 4

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What is your diagnosis and next step?

- A. # Radius. Cast for 6 weeks
- B. # Radius but ?SL ligament rupture. Cast and MRI.
- C. # Scaphoid. Cast for 8 weeks
- D. No fracture seen. Repeat Xray 1/52



QUIZ Question 4

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What is your diagnosis and next step?

- A. # Radius. Cast for 6 weeks
- B. # Radius but ?SL ligament rupture. Cast and MRI.
- C. # Scaphoid. Cast for 8 weeks
- D. No fracture seen. Repeat Xray 1/52



QUIZ Question 4

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SUMMARY POINTS

- Thumb - Partial UCL non op. High grade = Surgery
- Base of thumb OA - don't have to just "live with it"
- PIP - Check congruence and "V" sign. If >30% needs surgery
- Scapholunate ligament - Suspect rupture with high velocity fractures, twisting/rotational forces.

THANK YOU!!

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- For more information...

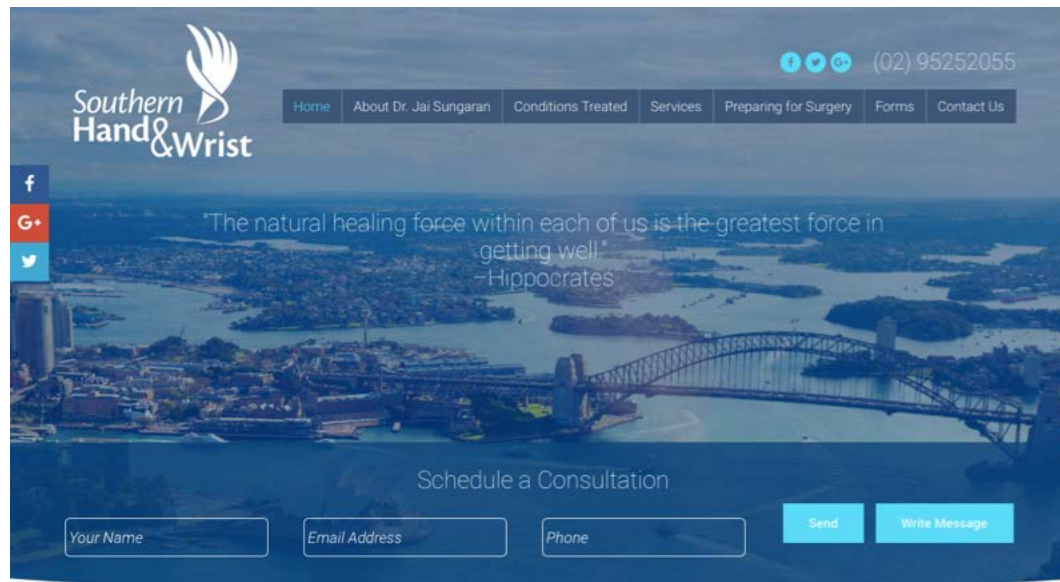
www.handandwrist.com.au or email me: doctorjai@optusnet.com.au



@Shandandwrist



Southern Hand & Wrist



WHAT'S NEXT?

- 1st Workshop
 - Radiology of common hand and wrist conditions
- 2nd Workshop
 - Taping/Casting for acute injuries
 - Buddy taping
 - Dorsal blocking splint / Mallet splint
 - POSI splint
 - Ulnar gutter splint
 - Radial gutter splint
 - Short arm cast