

Office Management of Common MSK Injuries

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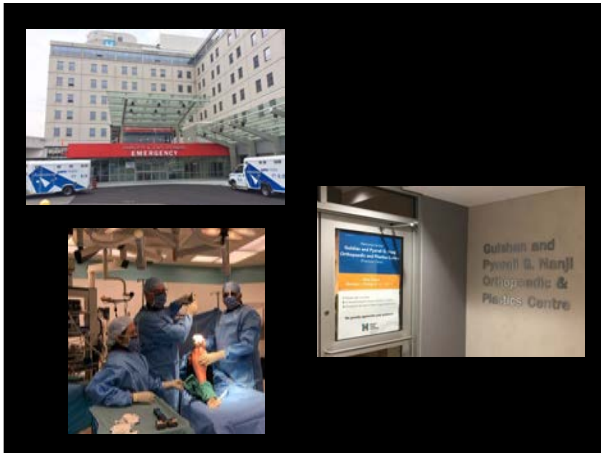



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Disclosure

- Pharma: Nil
- Speaker honoraria: Various accredited conferences
- Other:
 - Director and Faculty:
 - CASTED
 - Beats N' Bones

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MSK Injuries

- Bone
- Ligament
- Tendon
- Muscle
- Cartilage

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Age and Trauma

Older – weaker bone – osteoporosis

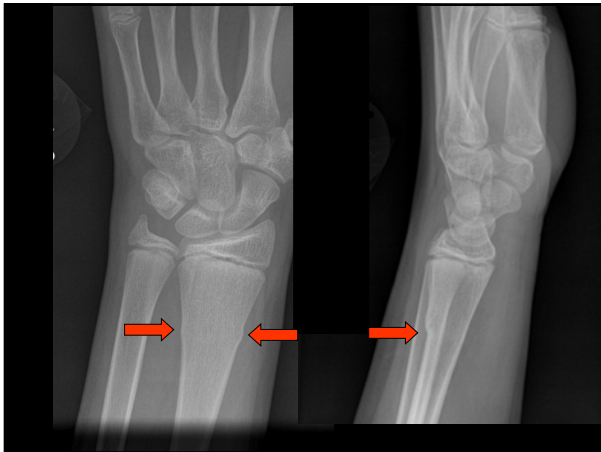
Younger – weaker bone – growth plate

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Salter-Harris Classification for Growth Plate Fractures

I	II	III	IV	V
				
S	A	L	T	ER

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Patient Factors - Screening

- Younger
- Older
- Traumatic
- Physically demanding
- Co-morbidities

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History, History, History

- Traumatic
- Mechanism
- Events after injury
- Relieving/Aggravating

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Physical

- ‘Look, Feel, Move’

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Imaging Options

- X-ray
- U/S
- CT
- MRI
- Bone Scan

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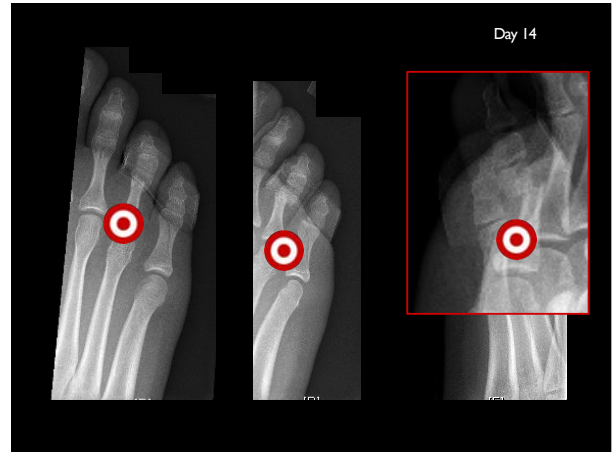
Imaging Options

- X-ray
 - Be specific
 - Extra views
 - Not perfect

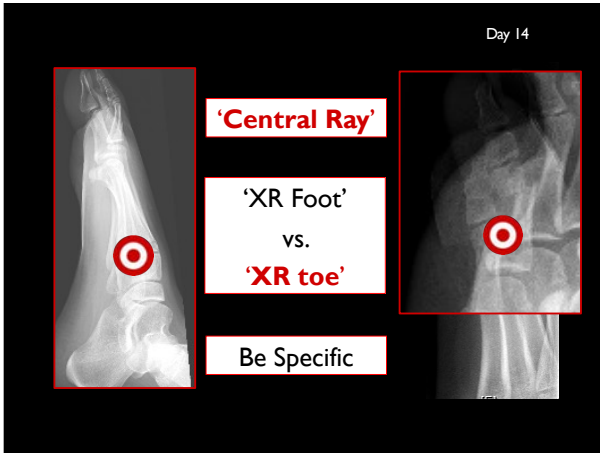
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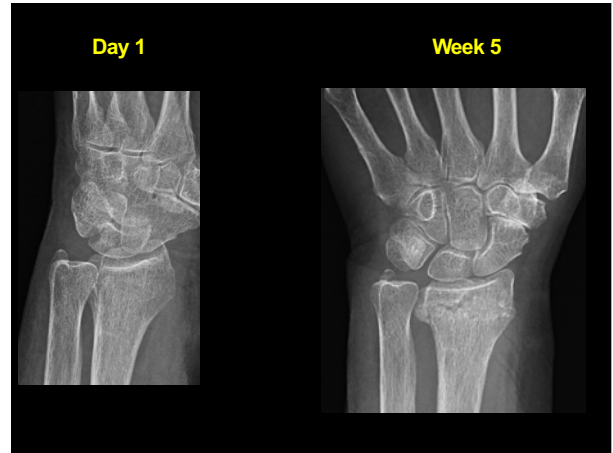
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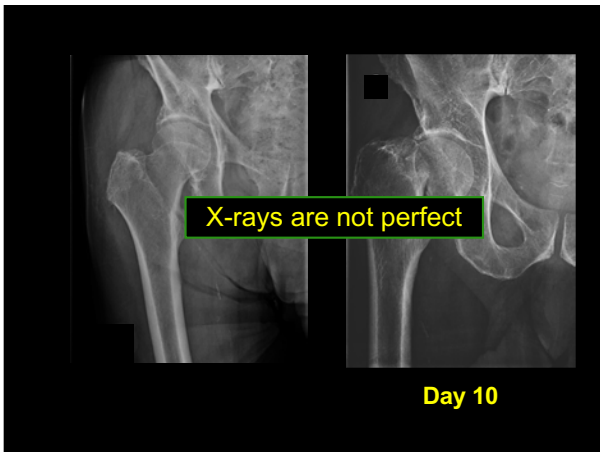
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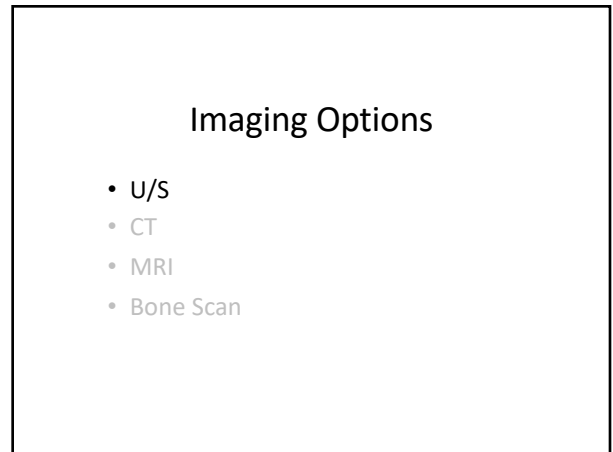
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45 y.o. Male
Increase Shoulder Pain after hug

- Pain x 6 months – warehouse work
 - GP: US – ‘tendonitis’
 - Physio / NSAIDs – No help
 - Back to GP
 - Has an ortho appt 4 days/ MRI in a month
- 1 week ago – hug – increased pain

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**Ultrasound of the Shoulder:
 Asymptomatic Findings in Men**

51 exams; age 40-70
 3 MSK rads
 subtle/possible findings EXCLUDED

CONCLUSION. Asymptomatic shoulder abnormalities were found in 96% of the subjects. The most common were subacromial-subdeltoid bursal thickening, acromioclavicular joint osteoarthritis, and supraspinatus tendinosis. Ultrasound findings should be interpreted closely with clinical findings to determine the cause of symptoms.

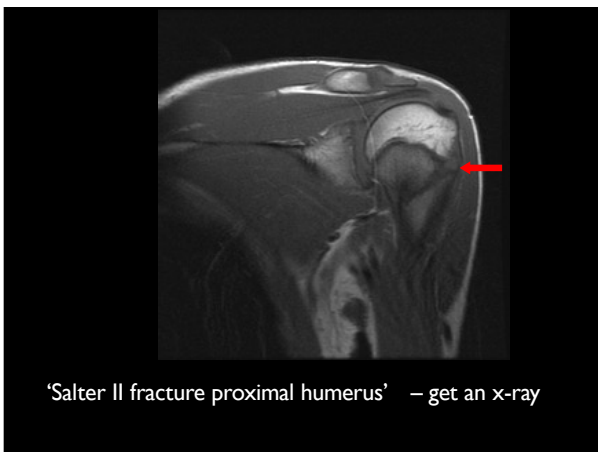
AJR:197, October 2011

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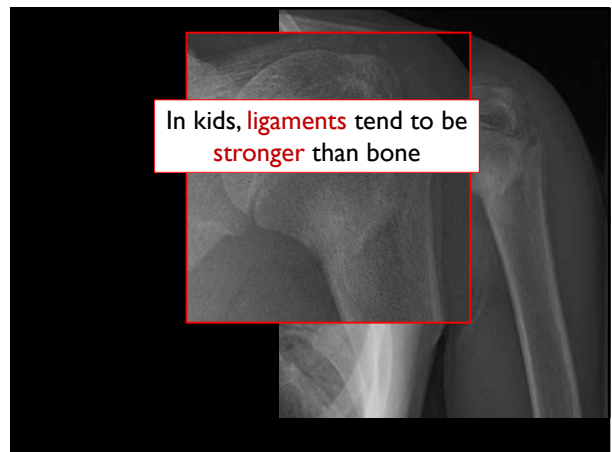
15 y.o. Female – Falls from horse

- Lands left side, pain shoulder
- W/I clinic – ‘soft tissue injury’
- Week 2 – FMD - ?rotator cuff tear, get U/S
- Week 3 – U/S - ?synovitis, get MRI
- Week 5 – MRI

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Low Threshold X-ray

Young – Traumatic

Old – Traumatic

15-60 y.o. – Persistent pain

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Low Threshold X-ray

Radiation Dose to Adults From Common Imaging Examinations

Procedure	Approximate effective radiation dose
Computed Tomography (CT) — Abdomen and Pelvis	10 mSv
Computed Tomography (CT) — Chest	7 mSv
Chest X-ray	0.1 mSv
Extremity (hand, foot, etc.) X-ray	0.001 mSv

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Source: American College of Radiology

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Imaging Options

- X-ray without US – should be very common
- US without x-ray – hardly ever
- X-ray and US – done for too often

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Imaging Options

- U/S
- CT
- MRI
- Bone Scan

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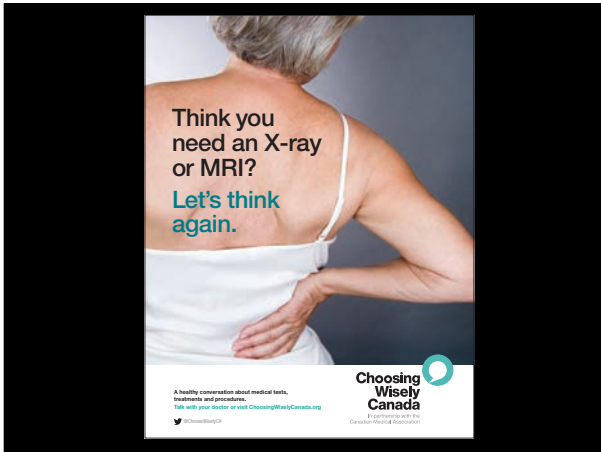
MRI

The image shows a medical form for MRI. It includes sections for 'PATIENT INFORMATION', 'PHYSICIAN INFORMATION', 'THIRD PARTY INFORMATION', and 'CLINICAL HISTORY'. The 'CLINICAL HISTORY' section contains several questions related to the patient's condition and previous treatments.

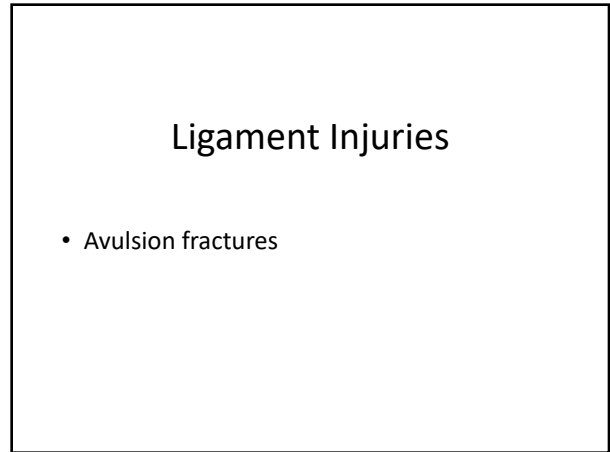
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The image shows a screenshot of a news article from The New York Times. The article is titled "Sports Medicine Said to Overuse M.R.I.'s" and discusses the overuse of MRI scans in sports medicine. It mentions Dr. James Andrews and his findings on shoulder imaging in professional baseball pitchers.

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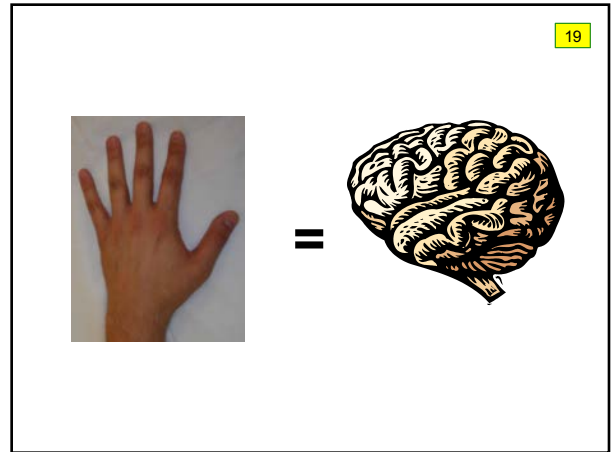
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Hand Injuries

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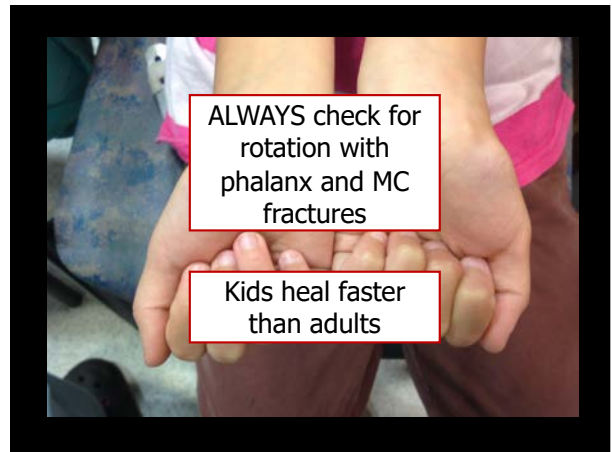
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De Quervain's



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1st CMC OA



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Mallet finger



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Mallet finger



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Mallet finger

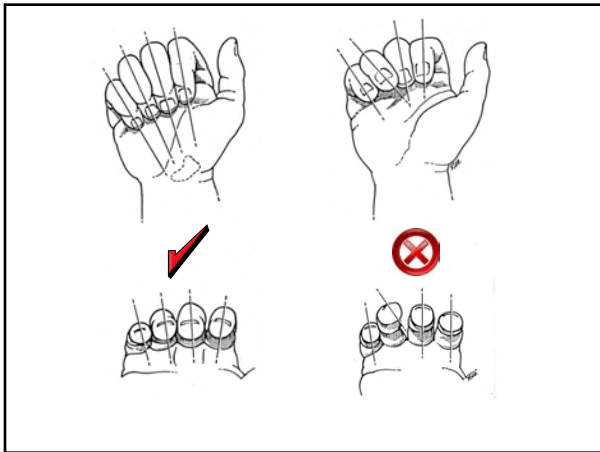
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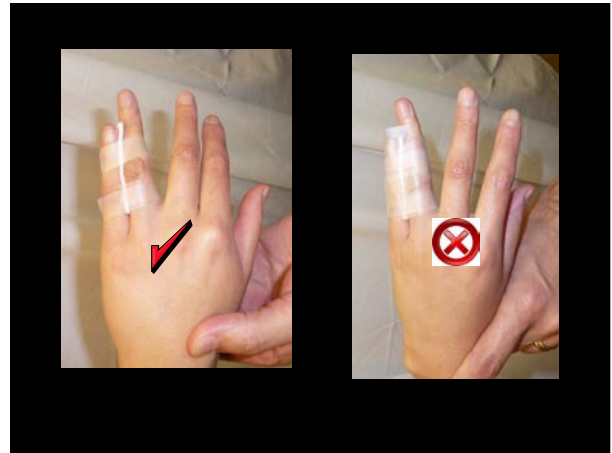
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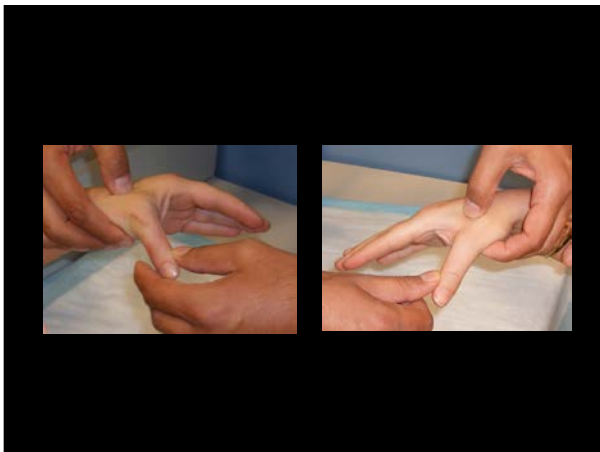
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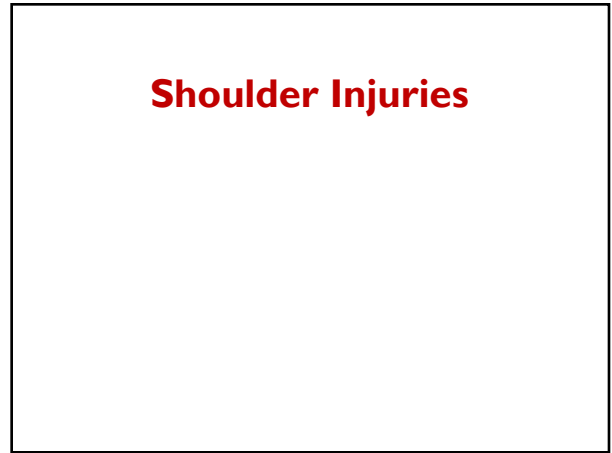
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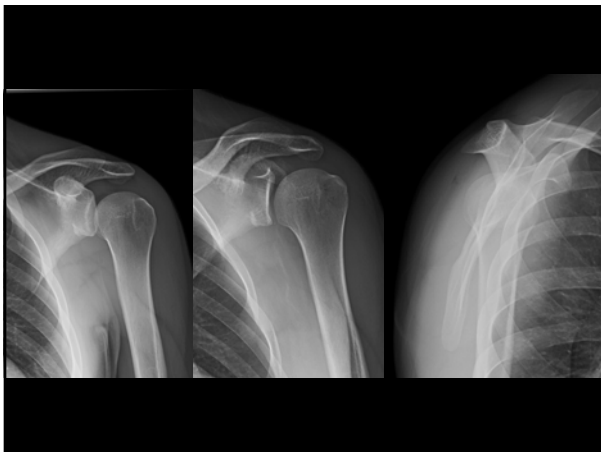
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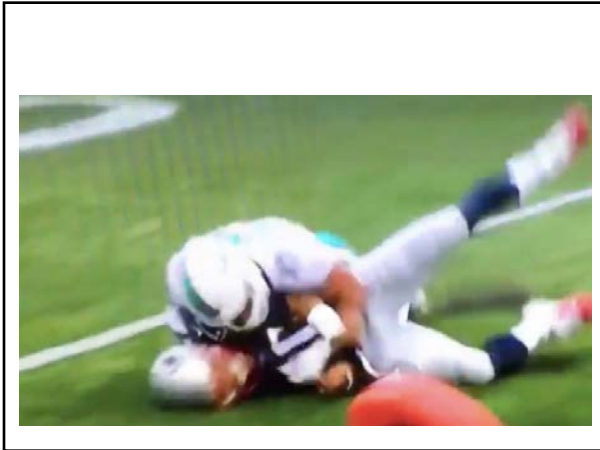
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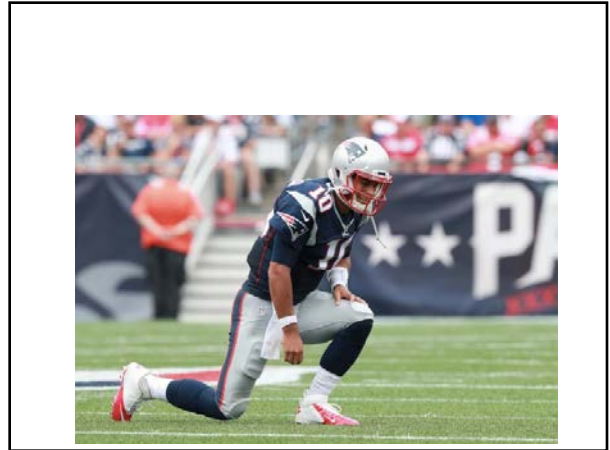
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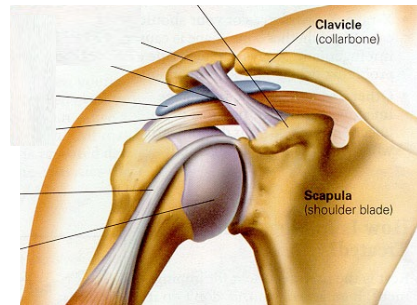
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Acute Shoulder Injuries

- Subluxed/Dislocated Shoulder
- Fracture – Prox Hum / GT / Clavicle
- AC Separation
- Rotator Cuff Tear

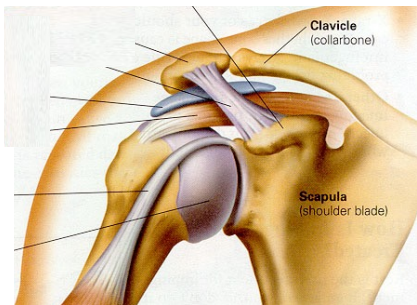
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Sublux'n / Dislocat'n Shoulder



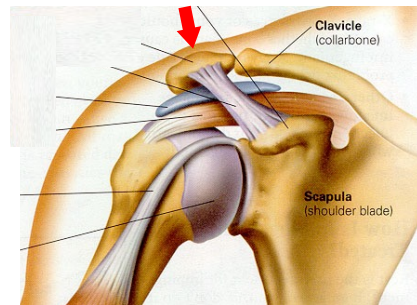
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Fracture



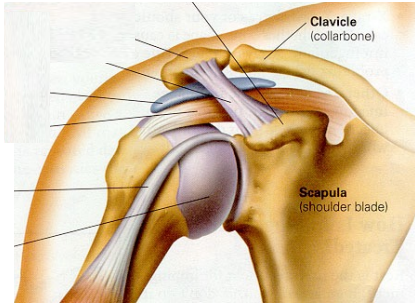
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AC Separation



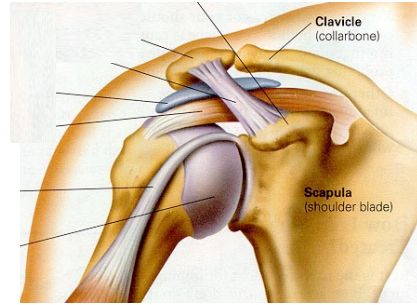
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Rotator Cuff Tear



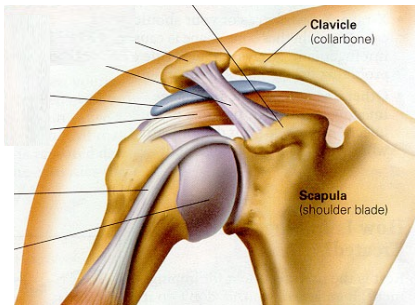
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Impingement



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Adhesive Capsulitis



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69F – Fell

3 weeks ago
 Pain with movement and at night
 Abducts R arm 60°
 X-ray (-)
 Diagnosis?

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(1194)

Patient Name: [redacted]
 Date of Birth: [redacted]
 Phone Number: [redacted]
 Service Desc:
 Referring Doctor: **Dr. Arun Sayal**
 CC: [redacted]

ULTRASOUND OF BOTH SHOULDERS

CLINICAL INDICATION:
 Pain in both shoulders.

FINDINGS:
 There was limited movement of the right shoulder. Mild degenerative changes were noted in both AC joints. The right bicip tendon appeared normal. There was a fluid collection in the right supraspinatus measuring 0.96 x 0.17 cm. There was a fair amount of fluid in the subacromial - subdeltoid bursa. There was a small amount of fluid in the left bicip sheath. A fluid collection in the region of the insertion of the left supraspinatus measures 1.05cm. A fluid collection in subacromial measures 0.42cm. There was a mild amount of fluid in the left subacromial - subdeltoid bursa.

IMPRESSION:
 Restricted movements of the right shoulder.
 There is suspicion of a partial tear of the right supraspinatus.
 Right subacromial - subdeltoid bursa.
 Left supraspinatus.
 There is suspicion of a partial tear of the left supraspinatus at the site of insertion.
 Left subacromial - subdeltoid bursa.

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CCMSU MEDICAL IMAGING

Digital X-Ray and Ultrasound
 800, 240 (Toronto) 88 St.
 Toronto, ON M8B 3S8
 P: 416 291-6779
 F: 416 291-6778
 E: info@ccmsu.com

Patient Name: [redacted]
 Address: [redacted]
 Referring Phys: Dr. A. Sayal
 CC: [redacted]

BIATERAL SHOULDER ULTRASOUND:

IMPRESSION:

1. Right shoulder: Large full thickness supraspinatus tendon tear measuring 2.3 cm x 2.5 cm.
 2. Left shoulder: Partial thickness articular surface supraspinatus tendon tear measuring 6 mm x 7 mm.

Evidence of rotator cuff tendon reattachment.

LEFT SHOULDER ULTRASOUND:

The biceps tendon is normal. There is a partial thickness articular surface supraspinatus tendon tear measuring 5 mm in length and 7 mm in width. The infraspinatus and subscapularis tendons are intact. The acromioclavicular joint appears unremarkable. There is no evidence of rotator cuff tendon reattachment.

IMPRESSION:

1. Right shoulder: Large full thickness supraspinatus tendon tear measuring 2.3 cm x 2.5 cm.
 2. Left shoulder: Partial thickness articular surface supraspinatus tendon tear measuring 6 mm x 7 mm.

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AJR:197, October 2011

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1

Source: American College of Radiology

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Midshaft adult clavicle #s:
 Most non-operative (sling)
 OR if: *'Rule of 2's'*
 2 cm shortened
 2 cm displaced
 >2 pieces

23M
Fall, Bike

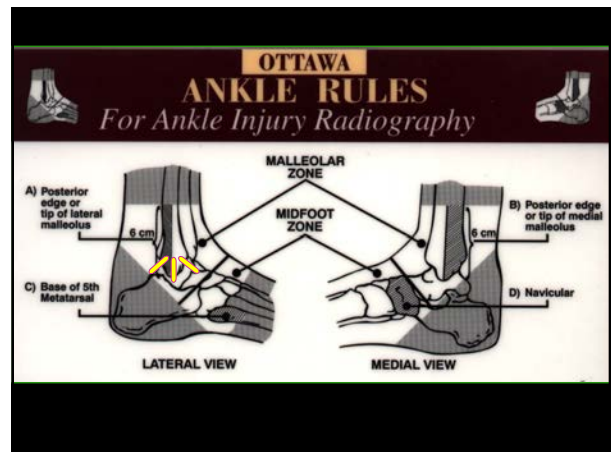
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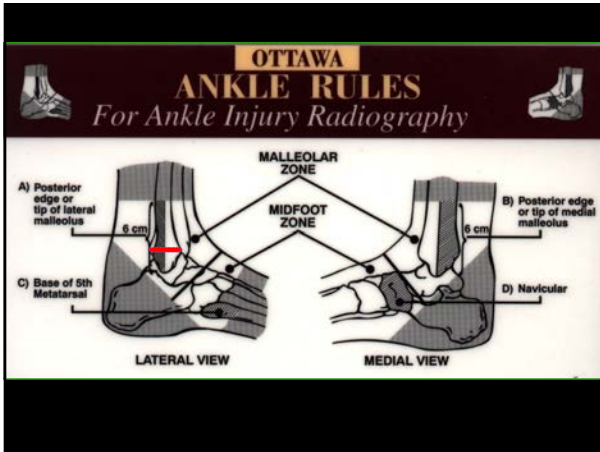
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Ankle Injuries

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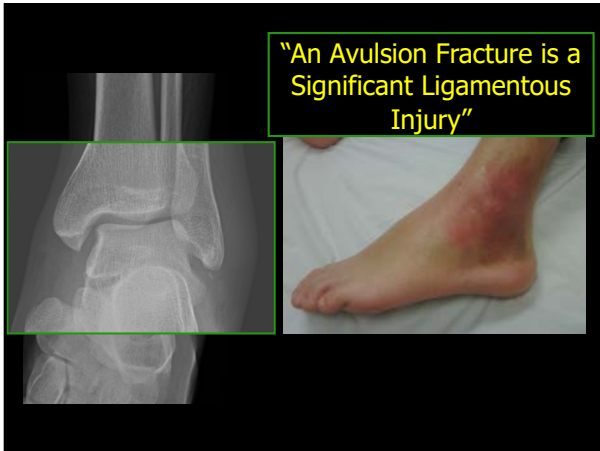
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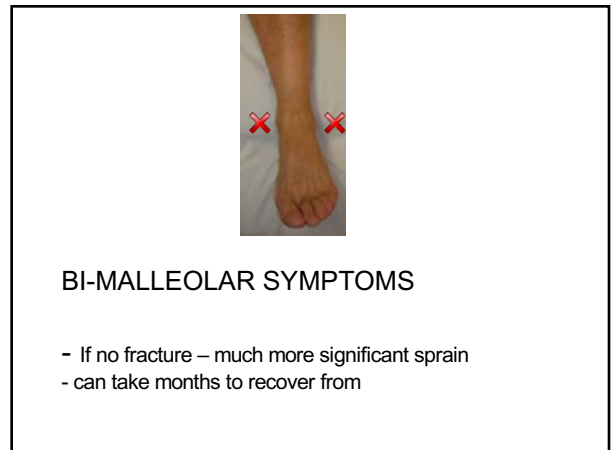
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Achilles Rupture

- Look specifically
- Plantar flexion not enough
- ?Management

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Foot Injuries

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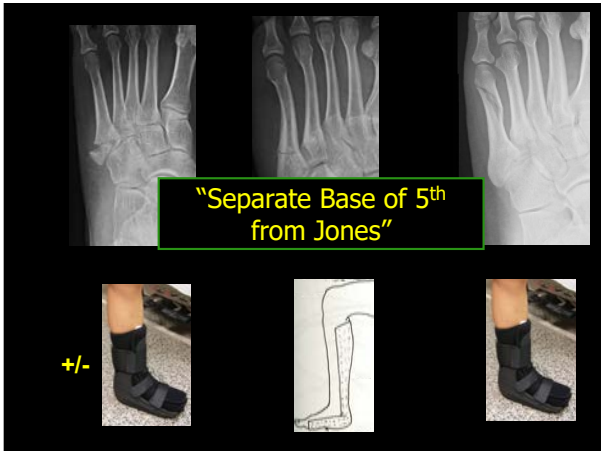
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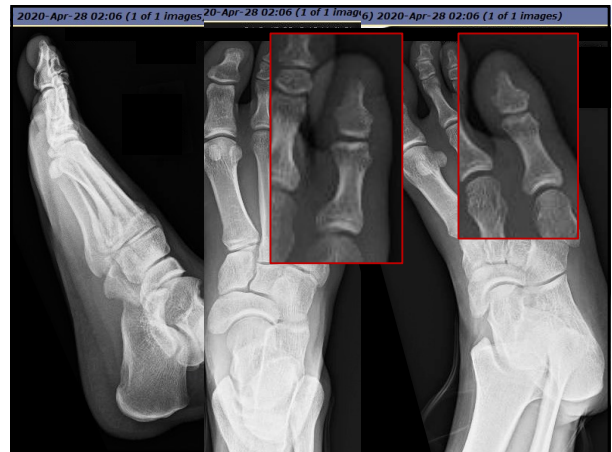
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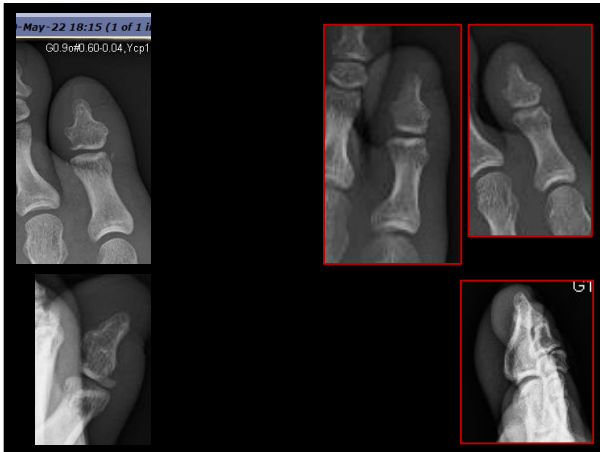
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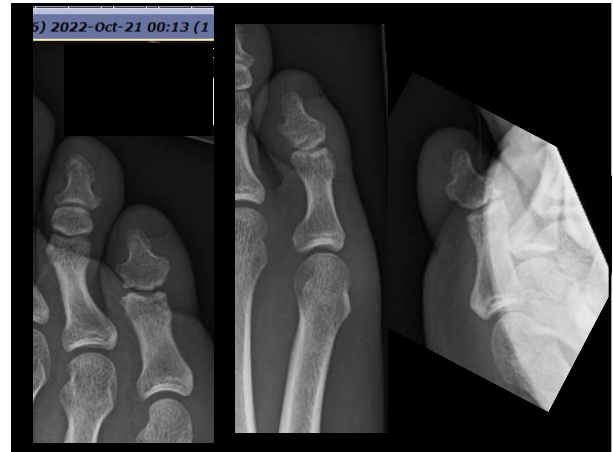
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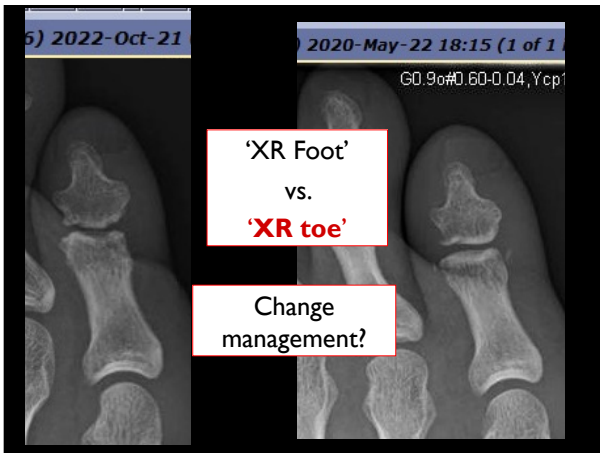
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