

Shoulder Injuries

Steven Klepps, MD



Shoulder Injuries

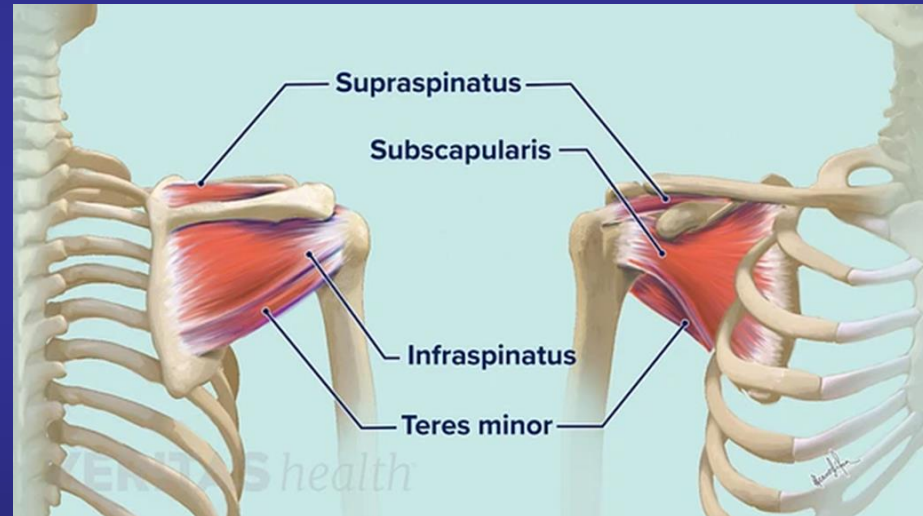
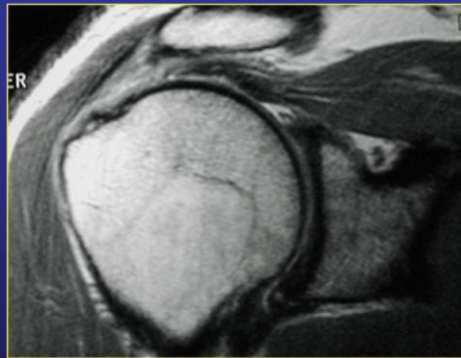
- Rotator Cuff Injury
- Instability
- AC Joint
- SC Joint
- Biceps/SLAP
- Fractures
- Cervical/Stinger/Nerve Issues

Rotator Cuff Disease

--exam

Strain vs Tear

So usually, non-op



Instability



--exam



Treatment of Instability

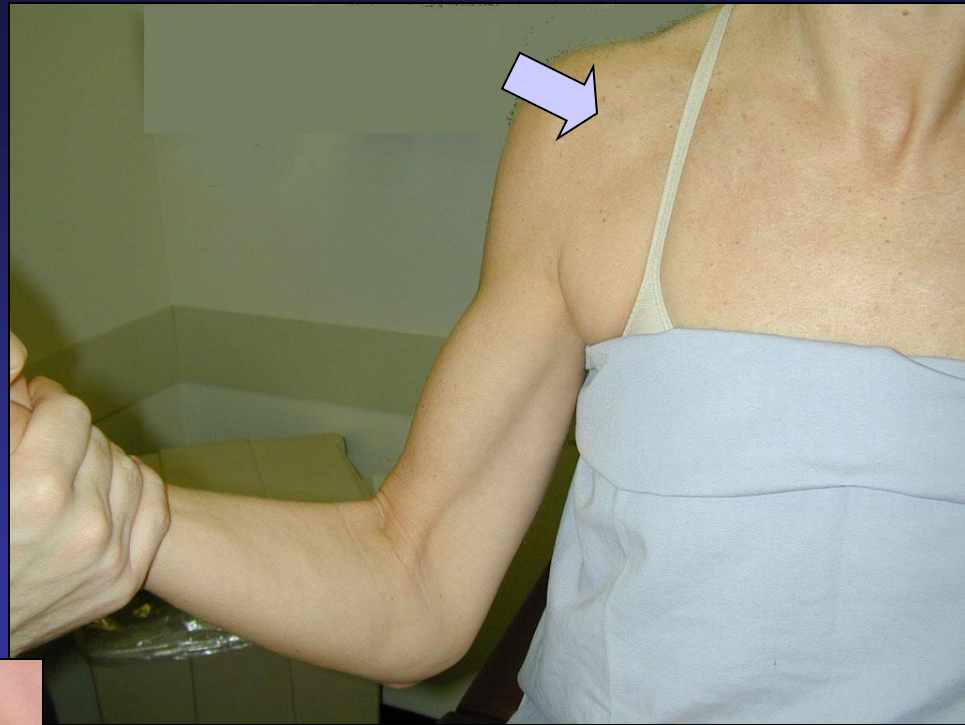
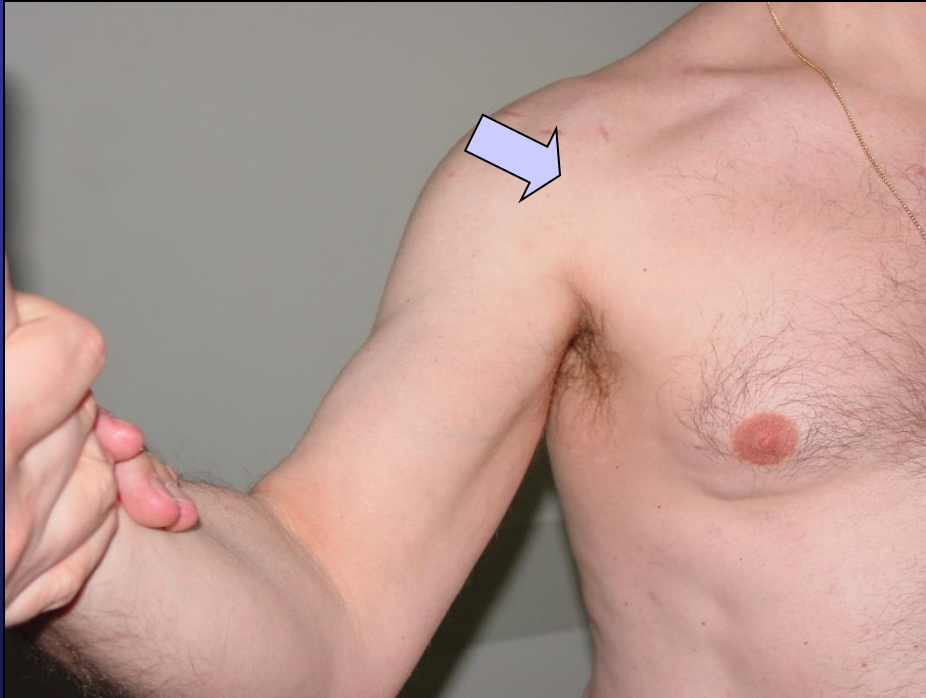
Anterior vs. Posterior
Chronic vs. 1st-time



- Immediate
 - Sling
- Rehab
 - Brace
- Surgical ??
- Age-Bimodal

Biceps Tendon

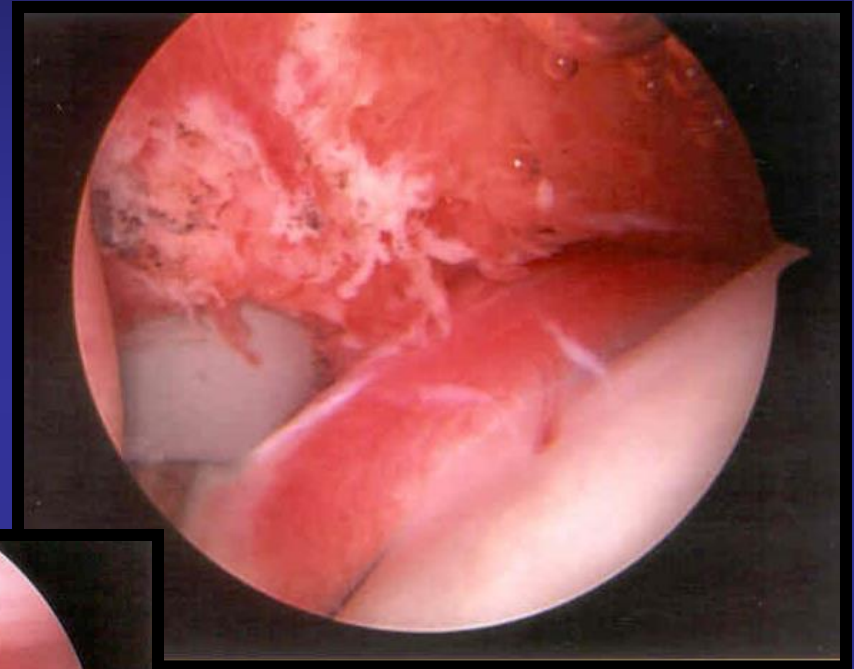
Speed's Test



Yergason's Test

Biceps Disease

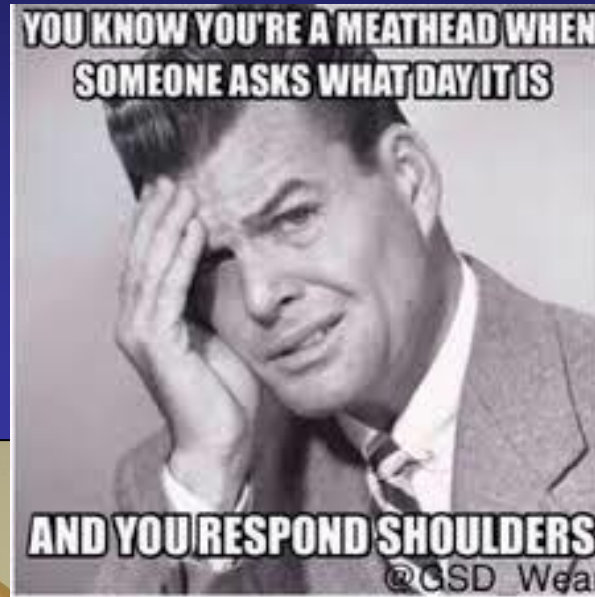
Synovial sheath: ?? Throwers



RX --

Spontaneous Rupture:

Don't forget
about the
PEC!!



SLAP Tears

Obrien's Test



Diagnostic Imaging



- MRI:
 - Moderate accuracy for biceps disease
 - Gadolinium recommended

RX--

Non-operative Management

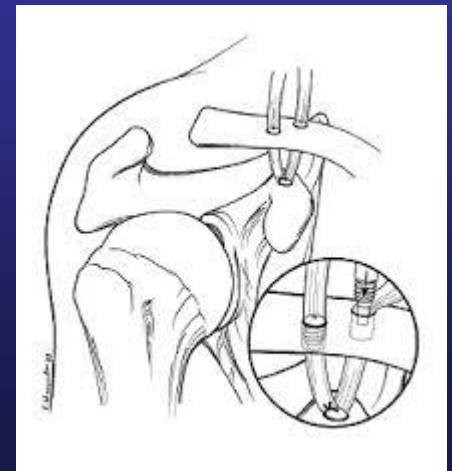
- Non-operative Management
 - Rest
 - NSAIDS
 - Physical Therapy X 3 mos
 - Rotator cuff strengthening
 - Instability
 - Scapula strengthening
 - Posterior Capsular Stretching
 - Internal Impingement
 - Throwing Program

AC Joint

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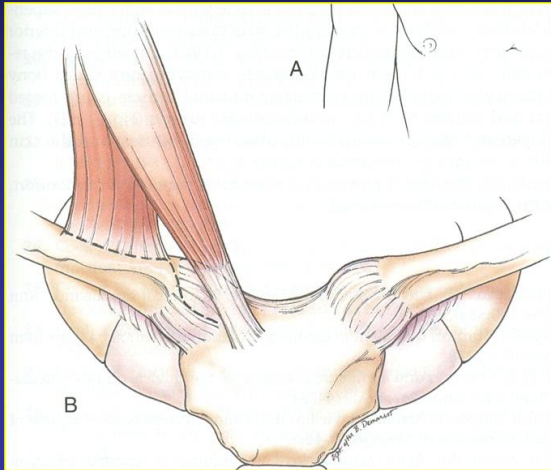
Separation



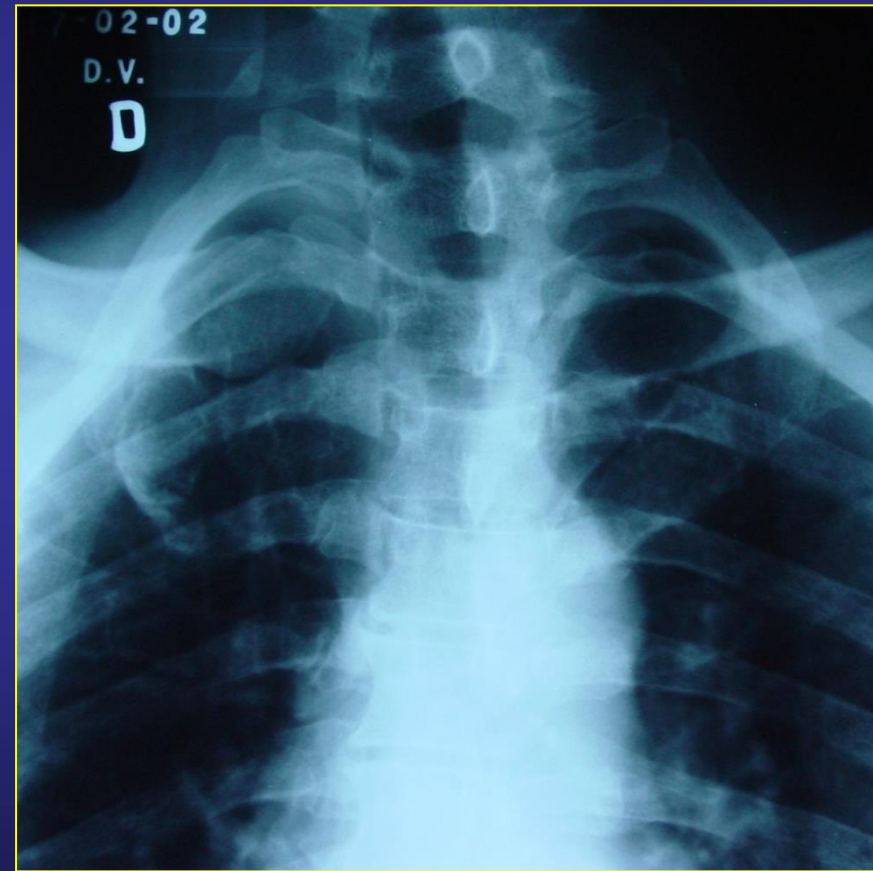
DJD

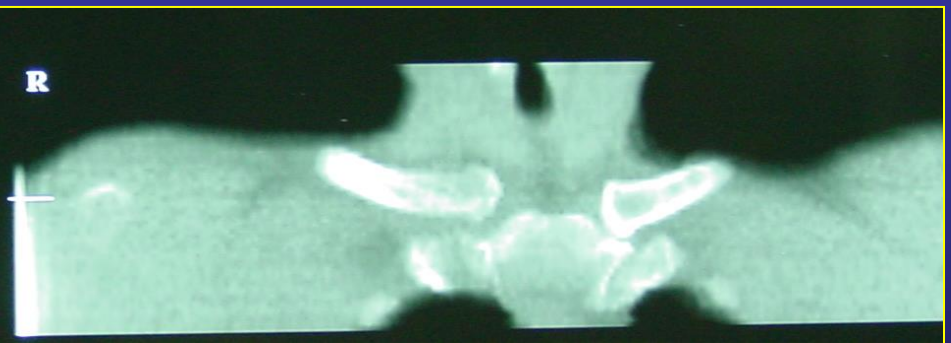


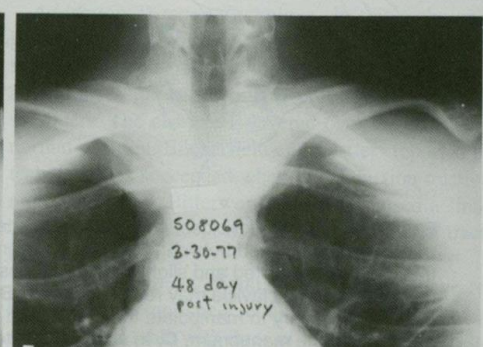
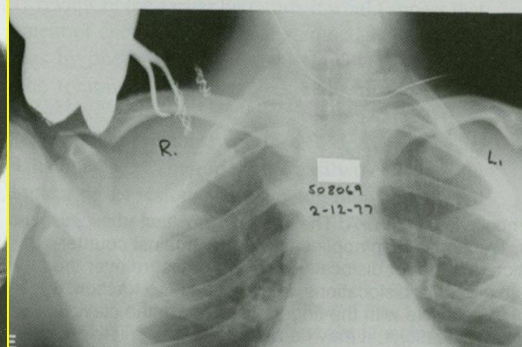
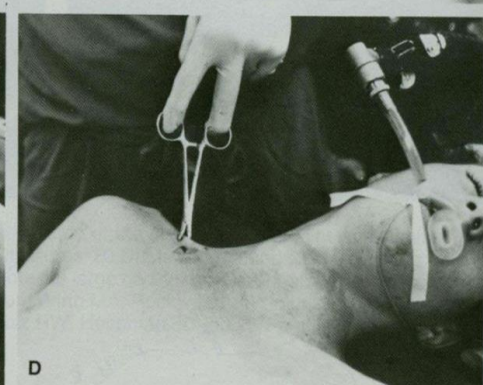
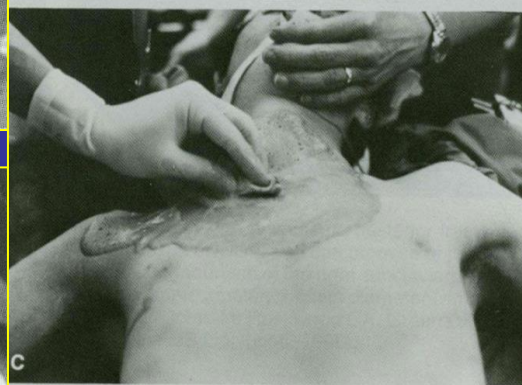
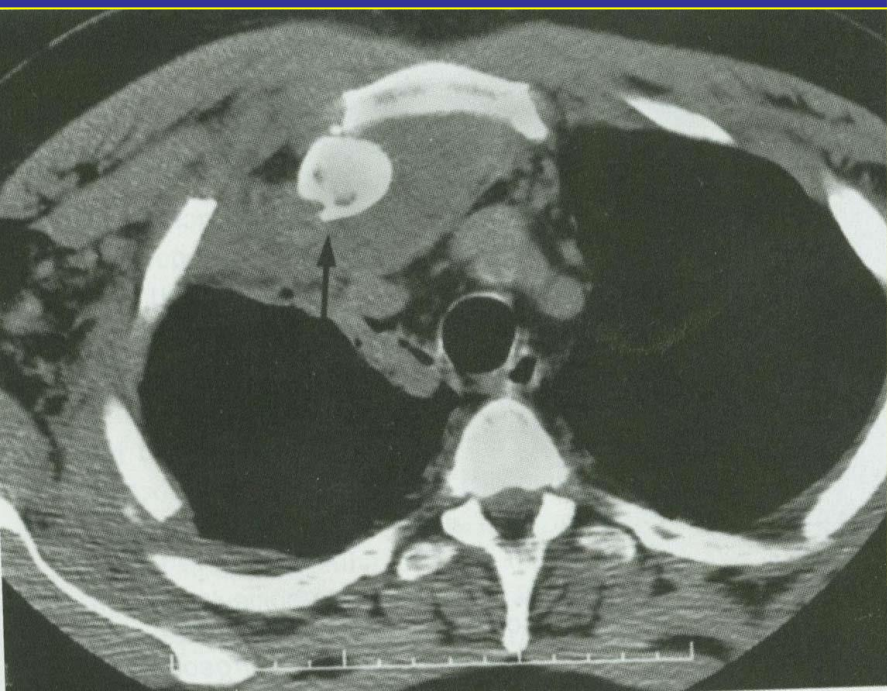
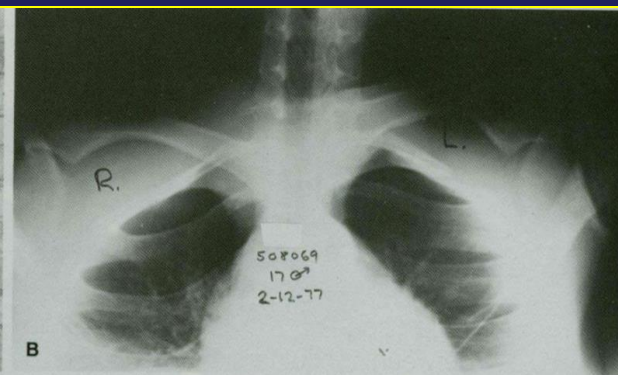
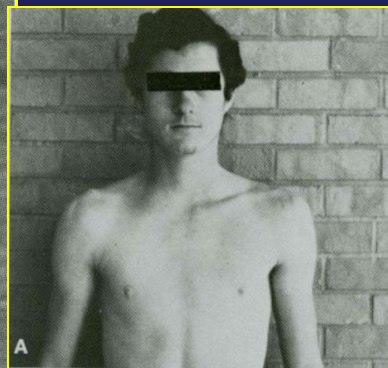
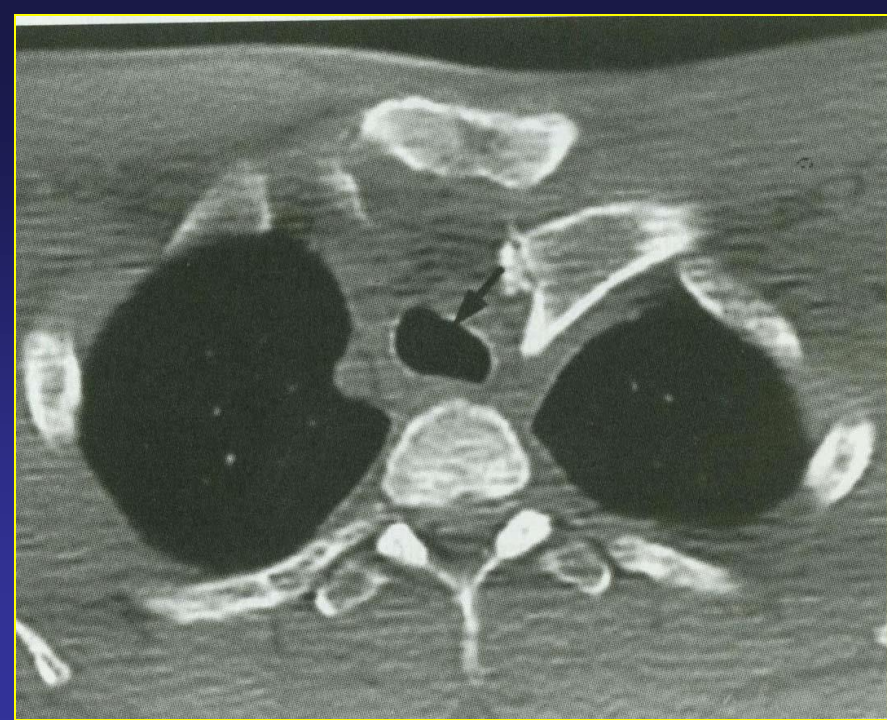
Sternoclavicular Joint



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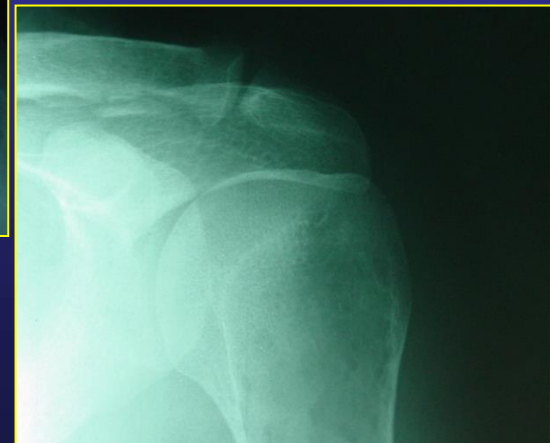
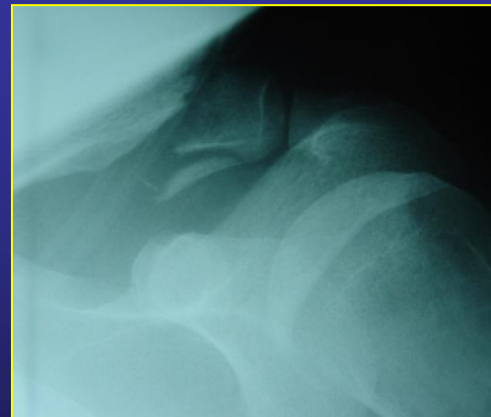


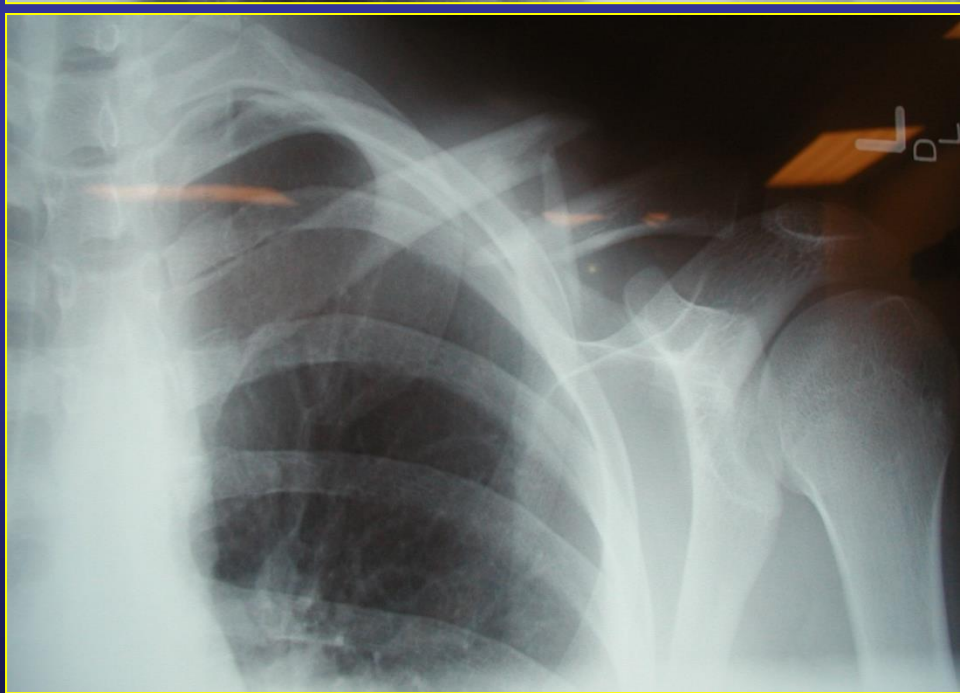


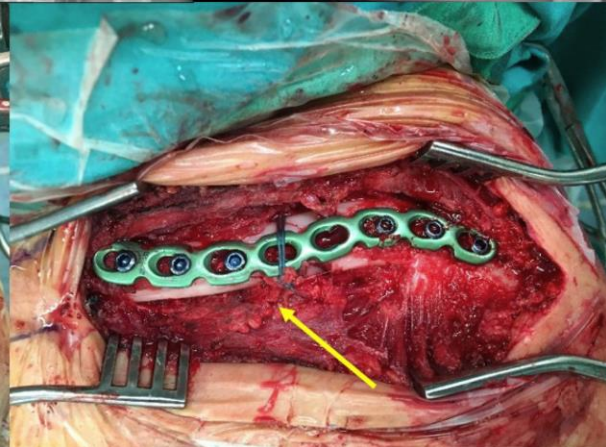
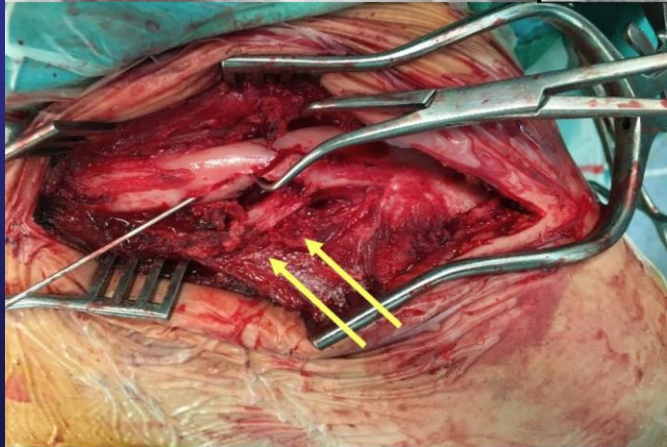
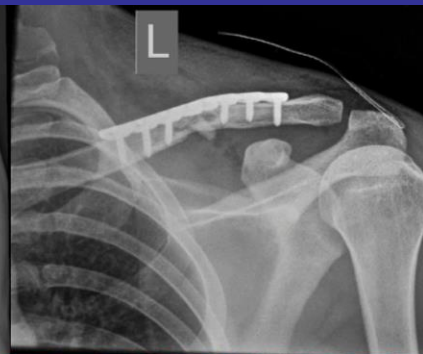
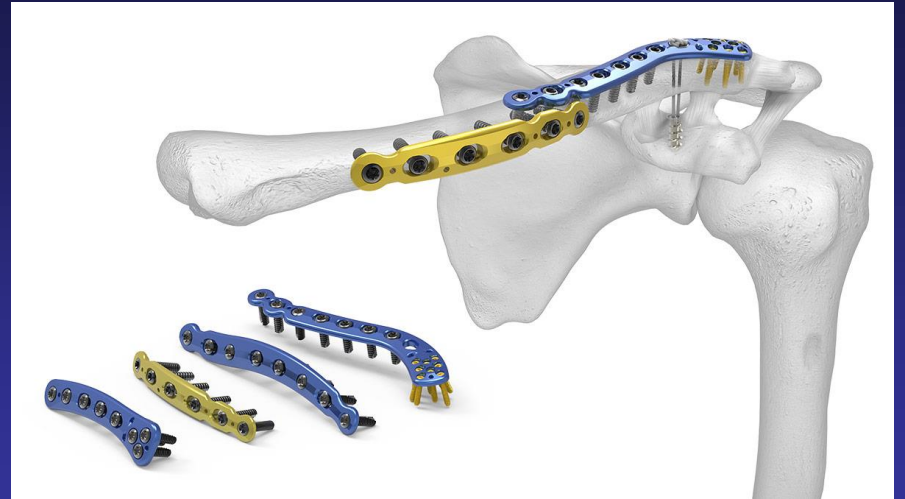


Clavicle Fractures:

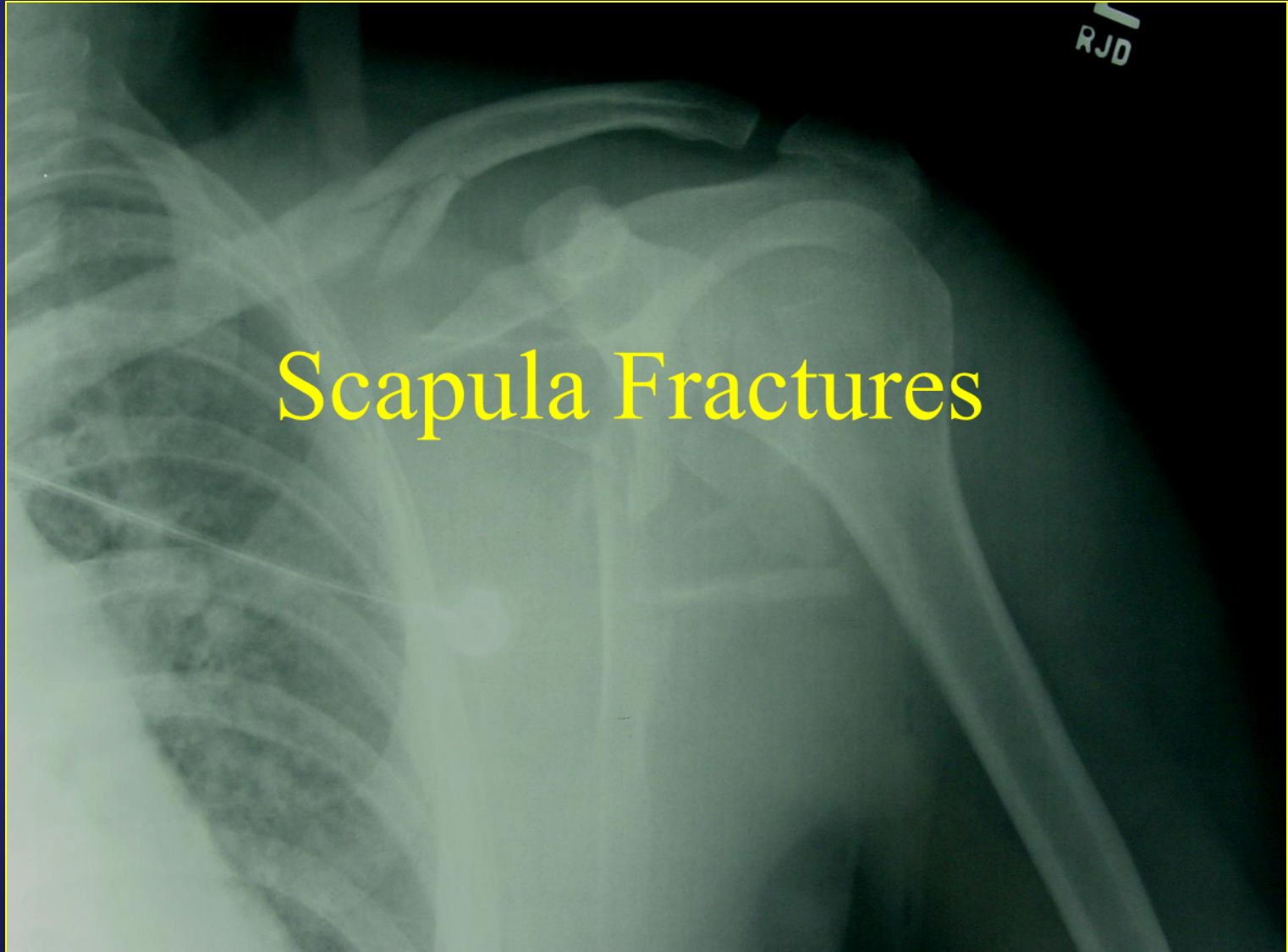
- Surgery?
 - Neurovascular Injury
 - Non-Union
 - Tenting Skin
 - Distal ???

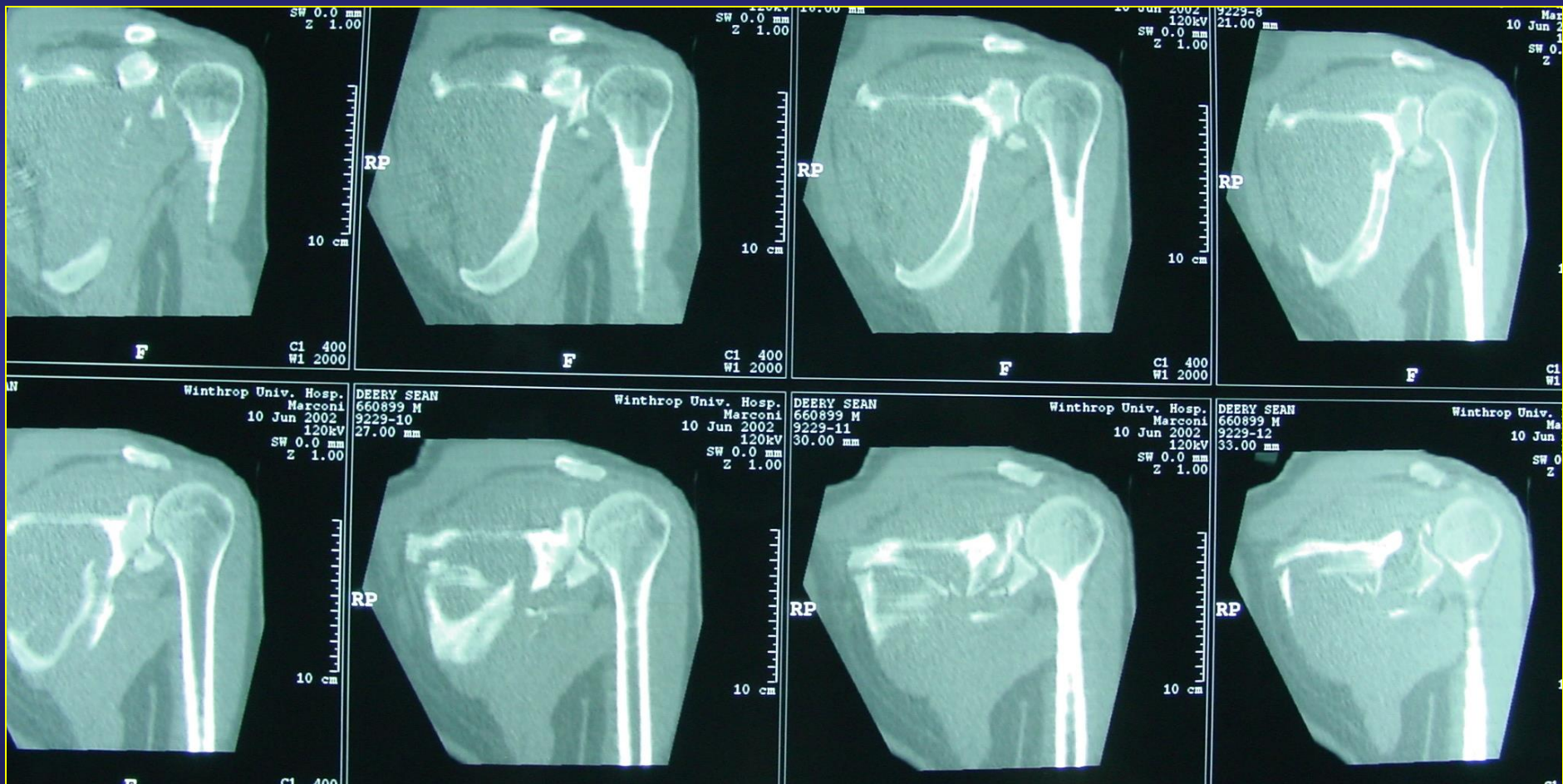




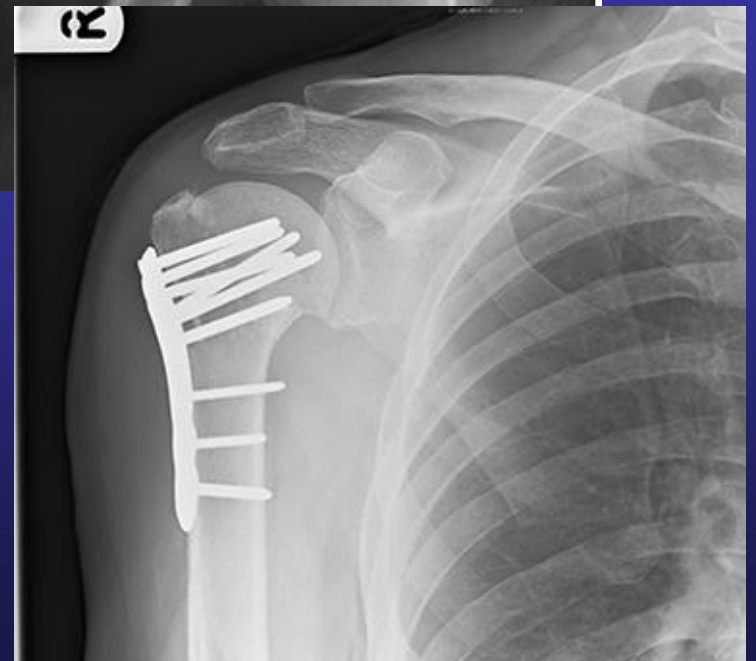


Scapula Fractures





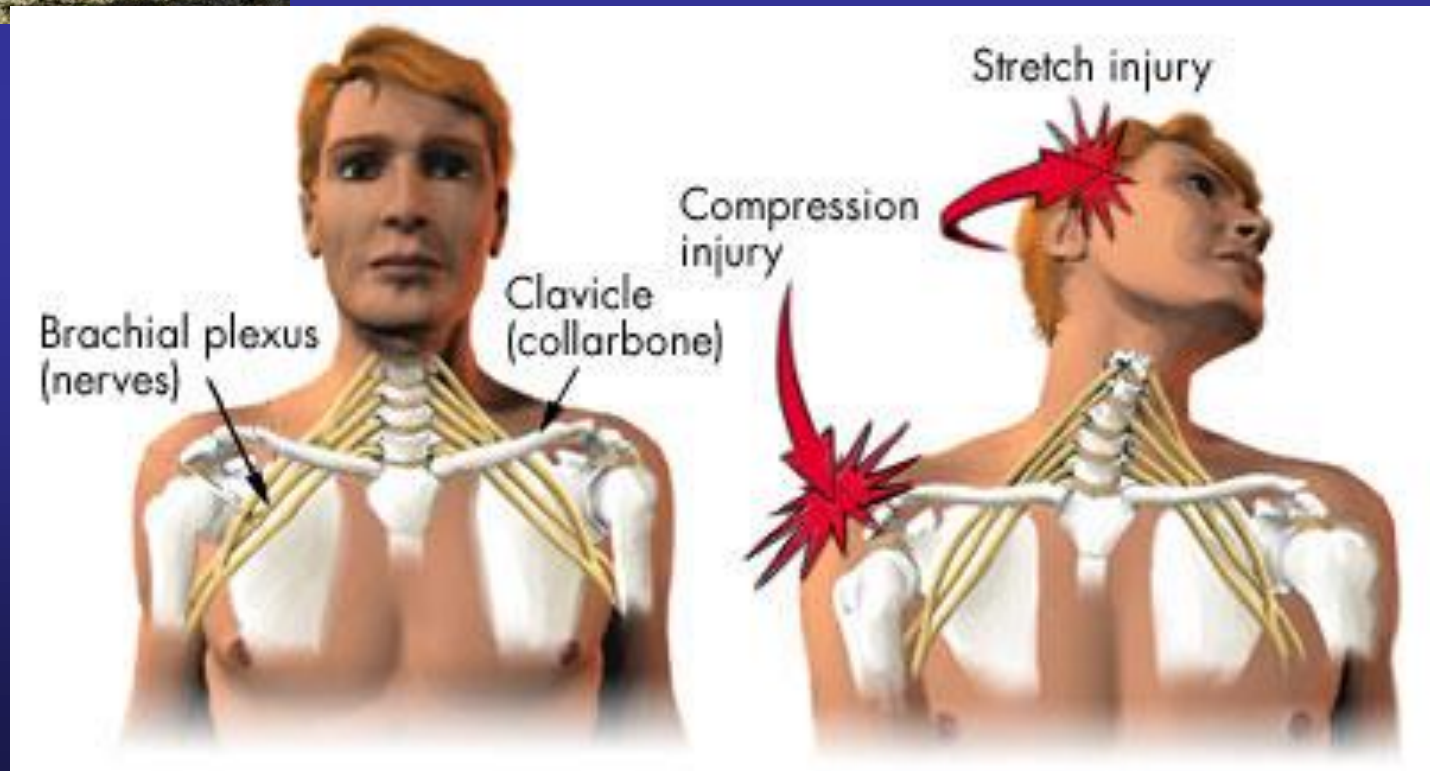
Proximal Humerus Fracture





Cervical Injury/Stingers

--Exam



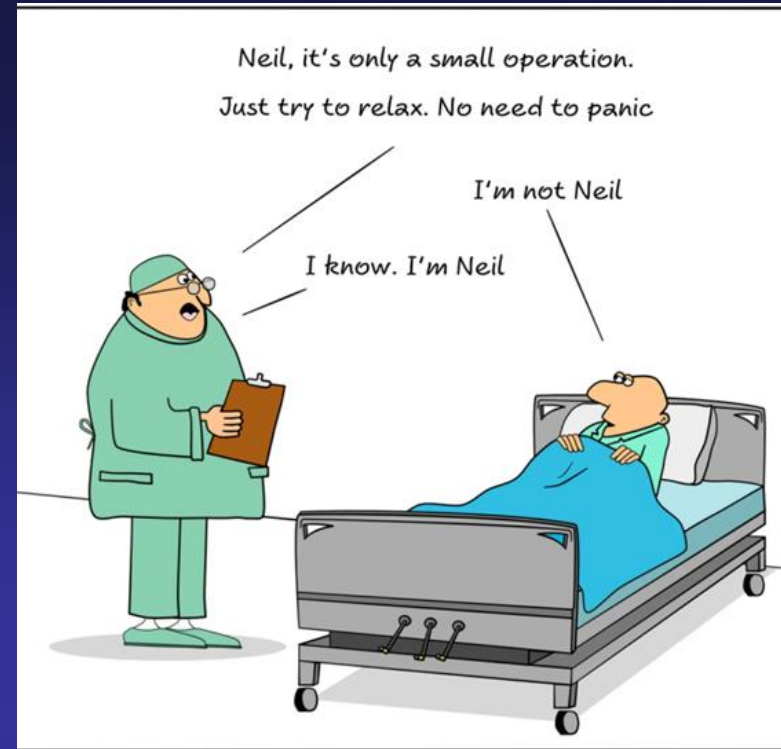
Return to Sports

- Non-surgical
 - Functional Testing
 - ROM, Strength, Neuro
- Time
 - Fracture- Tender + X-ray
 - Time of season
 - Year in school
- Protection
 - Brace
 - Surgery
 - Sport



Return to Sports

- Surgery → 6 months
 - What's happening...
 - Biologic healing
 - Muscular & Kinetic chain
 - Proprioception
 - Brace
 - Mental
- Objective Testing ...



PATIENCE

Is for assholes without someplace to be.



Criteria-based return-to-sport testing is associated with lower recurrence rates following arthroscopic Bankart repair

Mauricio Drummond Junior, MD, Adam Popchak, PT, PhD, Kevin Wilson, MD, Gillian Kane, BS, Albert Lin, MD*

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Hypothesis and background: This study aimed to analyze the impact of a criteria-based return-to-sport (CBRTS) testing protocol on recurrent instability following arthroscopic Bankart repair. We hypothesized that patients who underwent an objective CBRTS testing protocol to guide their clearance to return to sports would have less recurrent instability than those who did not undergo testing.

Methods: Thirty-six consecutive patients who underwent arthroscopic Bankart repair from 2016 to 2018, had a minimum of 1 year of follow-up, and completed functional and strength testing to evaluate readiness to return to sports were included in this retrospective case-control study. Patients with critical glenoid bone loss > 13.5%, multidirectional instability, and off-track Hill-Sachs lesions necessitating a remplissage or bone augmentation procedure were excluded from the study. Recurrence was defined as dislocation or subluxation symptoms requiring revision surgery. Statistical analysis included analysis of variance and the independent *t* test.

Results: There was no difference between the study and control groups regarding age ($P = .15$), sex ($P = .11$), hand dominance ($P = .56$), or participation in contact sports ($P = .78$). Patients who underwent the CBRTS testing protocol had a reduced rate of recurrent shoulder instability (5% vs. 22%; odds ratio, 4.85; $P < .001$). There was no difference in the time from surgery to recurrence between the groups (12 months vs. 13.6 months, $P = .43$).

Conclusion: Athletes who underwent an objective CBRTS testing protocol to guide their clearance to return to sports had a lower rate of recurrent instability following arthroscopic Bankart repair than those cleared to return based on the time from surgery. Athletes who did not undergo CBRTS testing after arthroscopic shoulder stabilization had a 4.85 times increased likelihood of recurrent instability development after return to sports.

Level of evidence: Level III; Retrospective Case-Control Design; Prognostic Study

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Keywords: Return-to-sport testing; shoulder instability; recurrence rate; labral repair; rehabilitation; Bankart repair; isokinetic strength; functional testing

Ortho Montana Return to Sports

Test		R		L		%	Goals
Shoulder Dynamometer ER +IR At 0 deg of ABD & At 90 deg of ABD	0 deg of ABD IR	#		#		_____% Pass/Fail	>90%
	0 deg of ABD ER	#		#		_____% Pass/Fail	>90%
	90/90 IR	#		#		_____% Pass/Fail	>90%
	90/90 ER	#		#		_____% Pass/Fail	>90%
Closed Kinetic Chain Upper Extremity Stability Test <small>Avg of 3 trials; 15 sec each</small>		taps		taps		____Taps Pass/Fail	>21 taps
Shot Put Throw (6#) <small>Best of 3 trials</small>		in		in		_____% Pass/Fail	>90%
ER Endurance Test (5% Body Weight DB) <small>Side lying</small>		Reps/60 sec		Reps/60 sec		_____% Pass/Fail	>90%
ER Endurance Test (5% Body Weight DB) <small>Prone</small>		Reps/60 sec		Reps/60 sec		_____% Pass/Fail	>90%



- Functional Testing



Thank You

- *Steven Klepps, MD*
Ortho Montana

