

Massive Cuff Tears

Is It Really Irreparable?

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Advanced Concepts in Sports Medicine

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Disclosure/COI

- No disclosures or conflicts of interest relevant to the presentation
- The opinions expressed in this presentation are the author's own and do not reflect the view of the United States government



Massive Rotator Cuff Tears

- Treatment Options
 - Non-op
 - Debridement
 - Repair (Partial vs Full)
 - Allograft/Patch
 - Tendon Transfer
 - Superior Capsular Reconstruction
 - Reverse Shoulder Arthroplasty



Decision Making Massive Tears

- Muscle Quality?
 - Degree of fatty infiltration
 - Goutallier CORR 1994, JSES 2003
 - CT Scan (Although now MRI used)
 - Stage 3 and 4 had a higher chance of re-tear and poorer functional results
 - Burkhart 2007 Arthroscopy:
 - Clinical improvement in 86.4% of patients predicted to fail by Goutallier
 - Even those with stage 4 – 40% improved

Goutallier Fatty Degeneration Staging

Stage 0 = completely normal muscle, without any fatty streak

Stage 1 = the muscle contains some fatty streaks

Stage 2 = the fatty infiltration is important, but there is still more muscle than fat

Stage 3 = as much fat as muscle

Stage 4 = more fat than muscle

(Goutallier D, CORR 1994;304:78)



Arthroscopic repair of massive rotator cuff tears with stage 3 and 4 fatty degeneration.

Burkhart SS¹, Barth JR, Richards DP, Zlatkin MB, Larsen M.

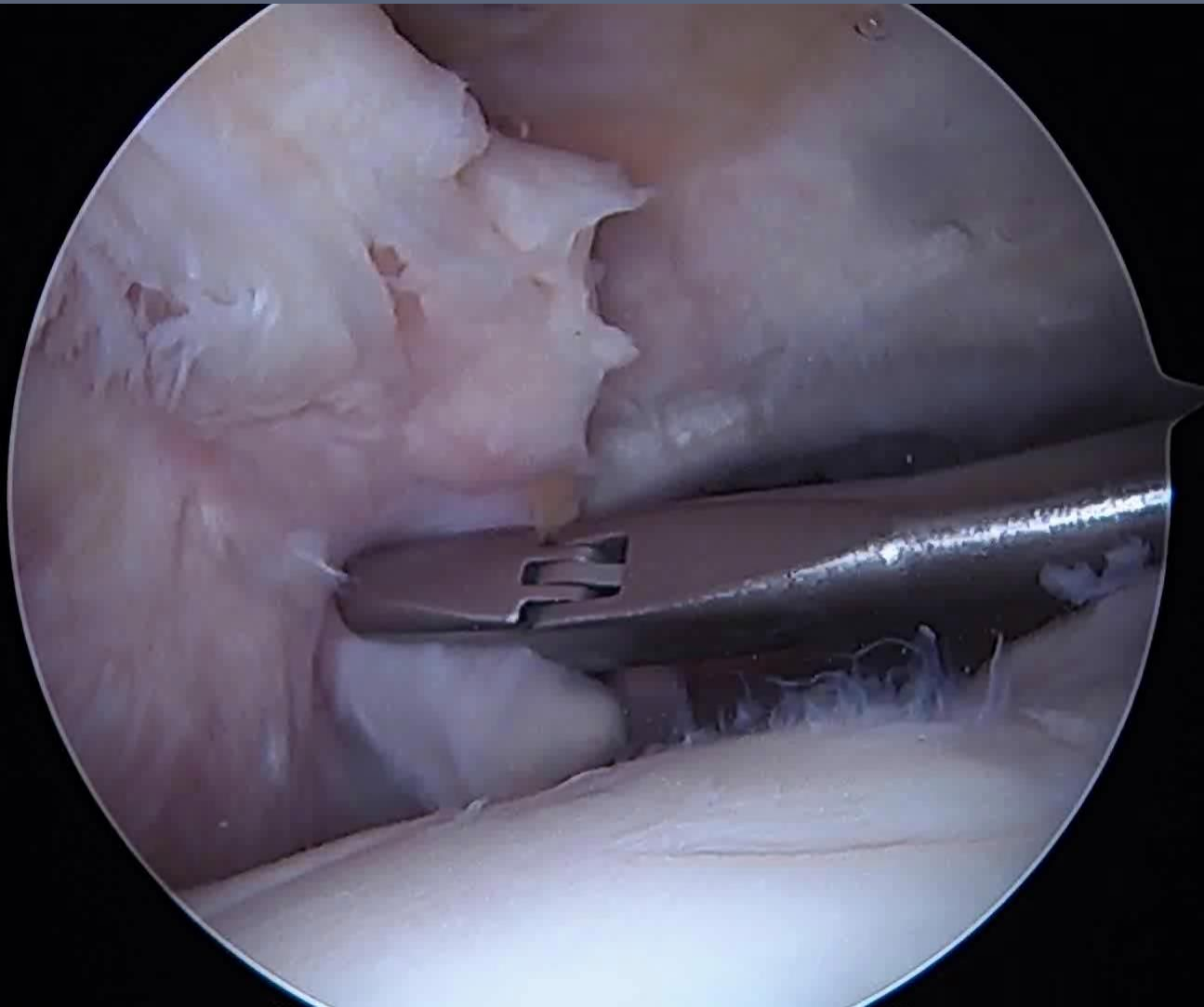
Arthroscopy. 2007 Apr;23(4):347-54.

Decision Making Massive Tears

- Prior Surgery
- Age
- Functional Status
- Tissue Quality
- Tissue Mobility
- OA

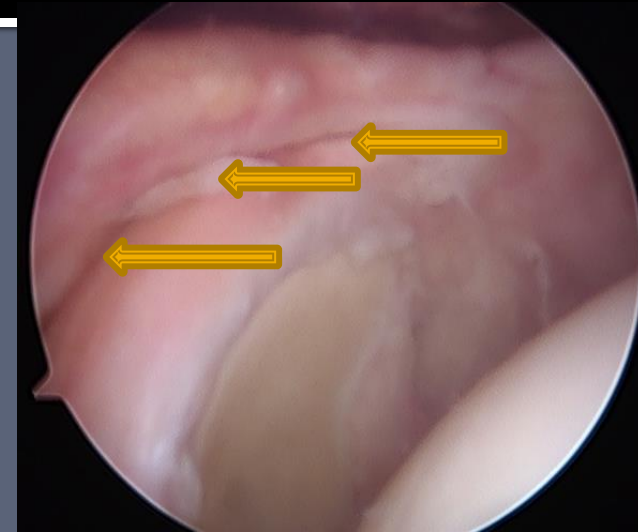


Subscapularis

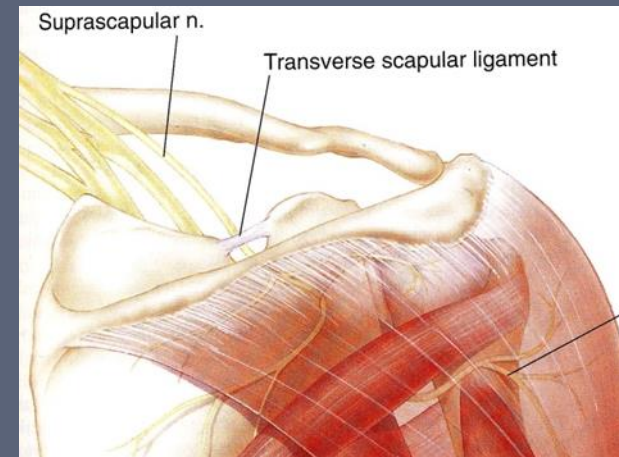


Mobilization

1. Intraarticular release
 - RF wand between cuff and labrum
 - Anterior, superior, posterior
 - 2cm medial - suprascapular nerve



2. Superior release
 1. Release soft tissue from coracoid to scapular spine to posterior acromion



1. Use RF wand – fairly vascular



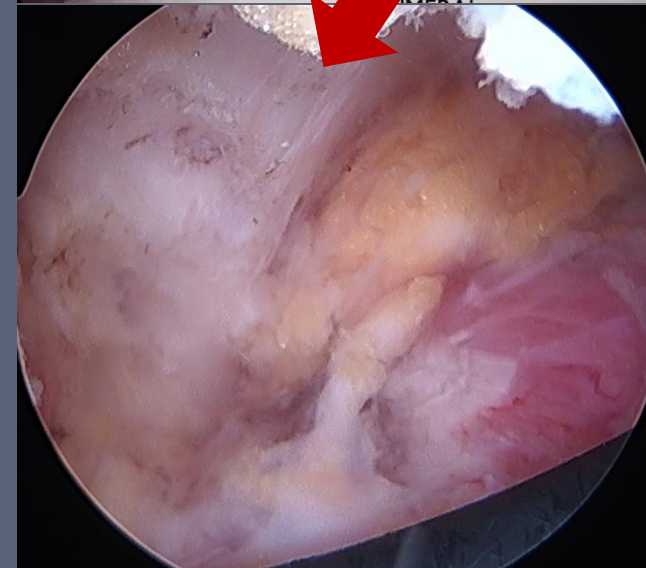
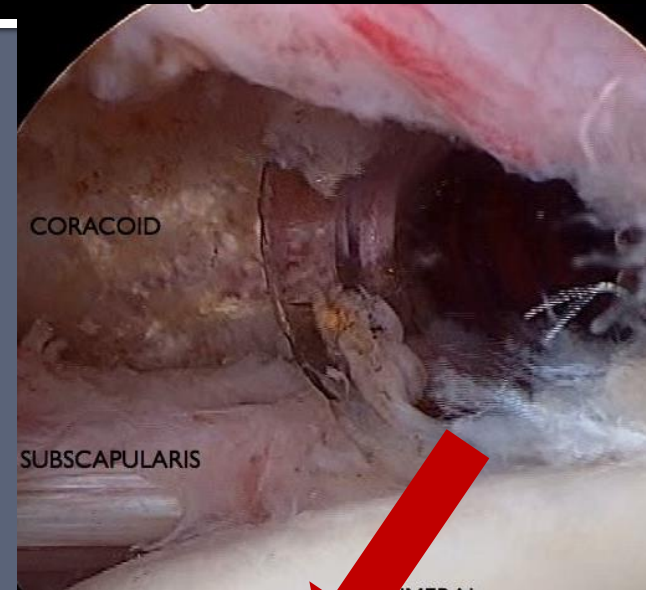
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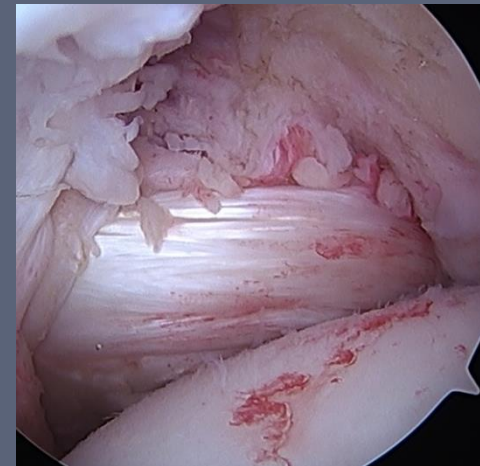
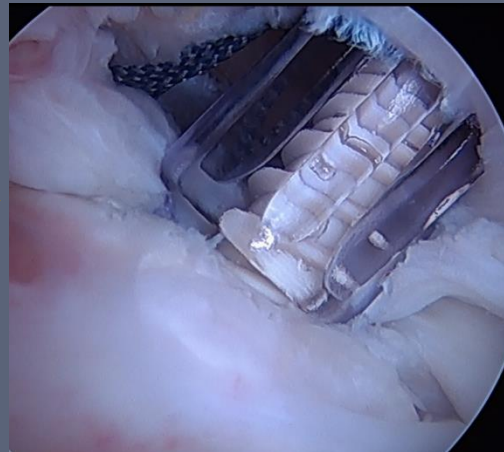
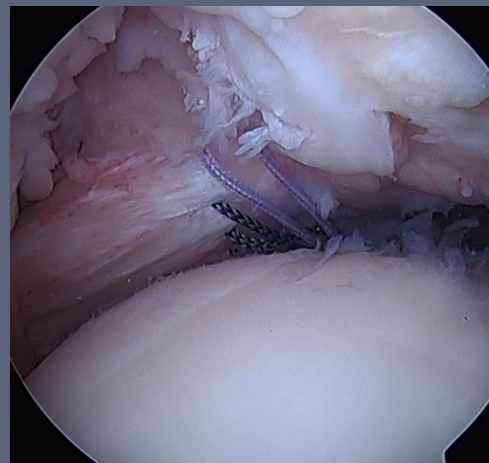
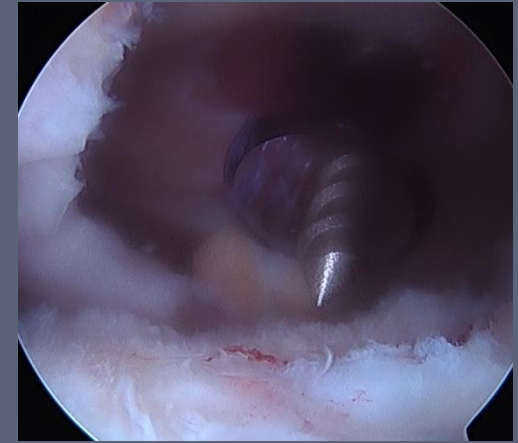
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1. Use RF wand – fairly vascular



Mobilization

- Interval Slide Progression
 1. Repair subscap after releases



Mobilization

- Interval Slide Progression

Release rotator interval, anterior slide along supraspinatus and leave lateral attachment of subs/supra

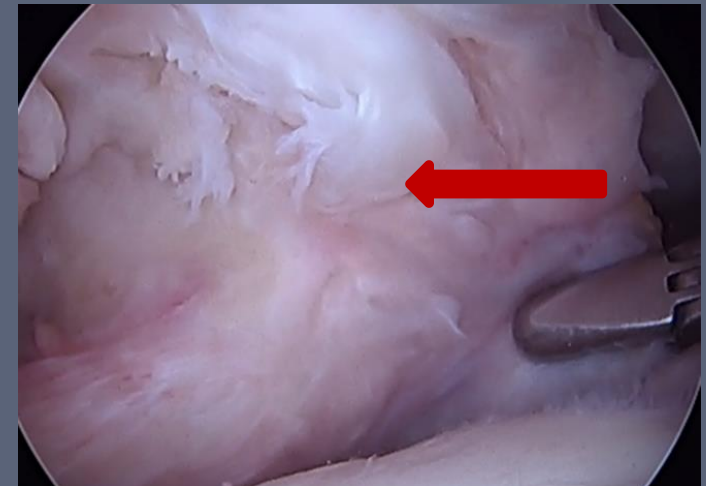
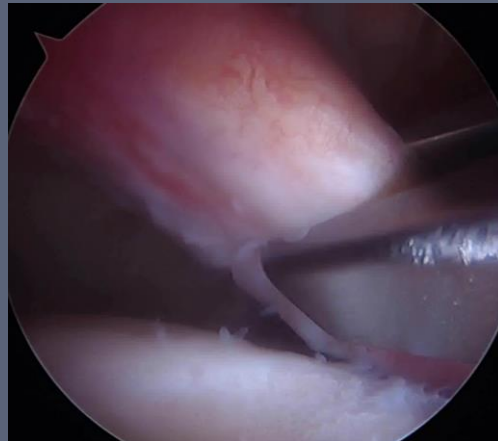
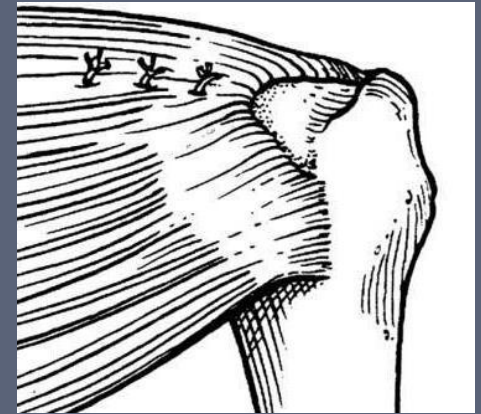
- "Comma" tissue



Mobilization

■ Interval Slide Progression

1. Evaluate tear pattern of supra/infra
 - Side to side sutures??
2. Evaluate mobility of supraspinatus
3. Complete anterior interval slide
 - Release connection btw sub/supra (CHL and SGHL)

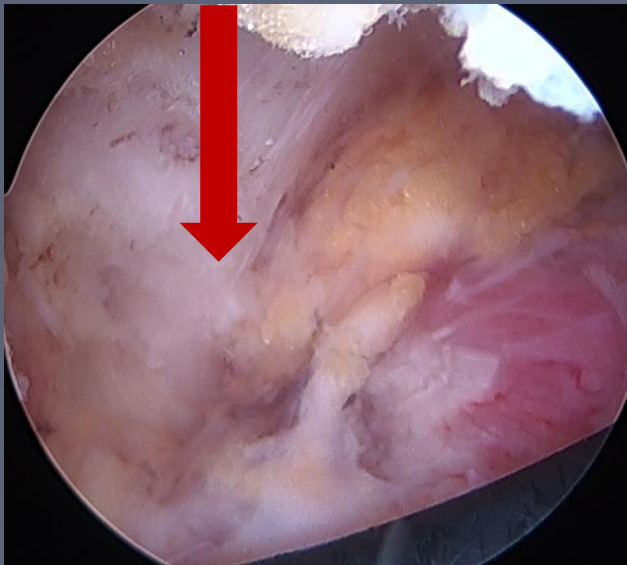


Mobilization

- Interval Slide Progression

Posterior interval slide btw supra/infra

- Start at scapular spine



Current Concepts in Arthroscopic Rotator Cuff Repair

Ian K. Y. Lo,* MD, FRCSC, and Stephen S. Burkhart,†† MD

From *The San Antonio Orthopaedic Group and the †Department of Orthopaedic Surgery, University of Texas Health Science Center at San Antonio, San Antonio, Texas

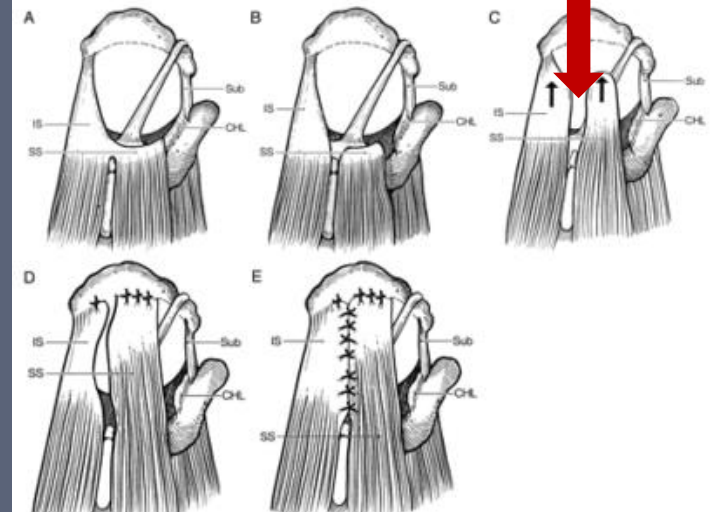
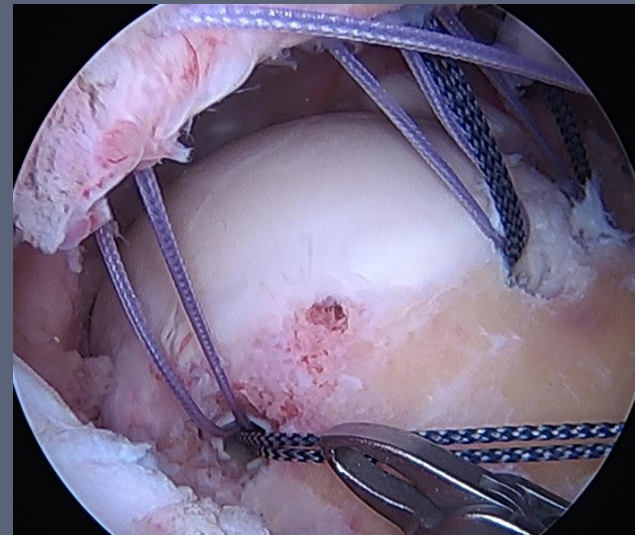
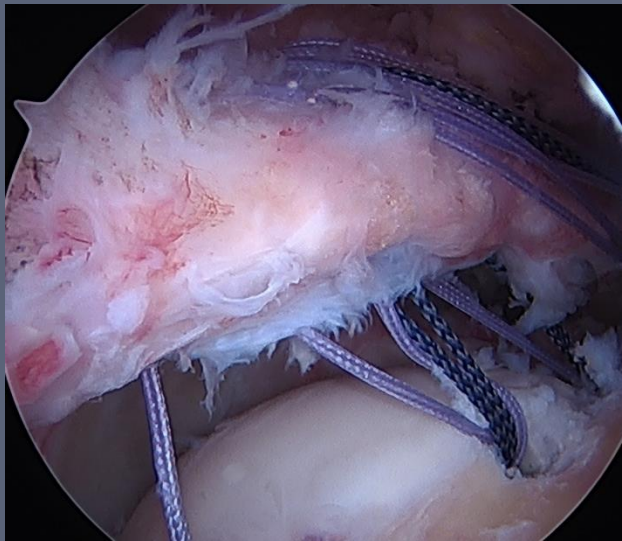
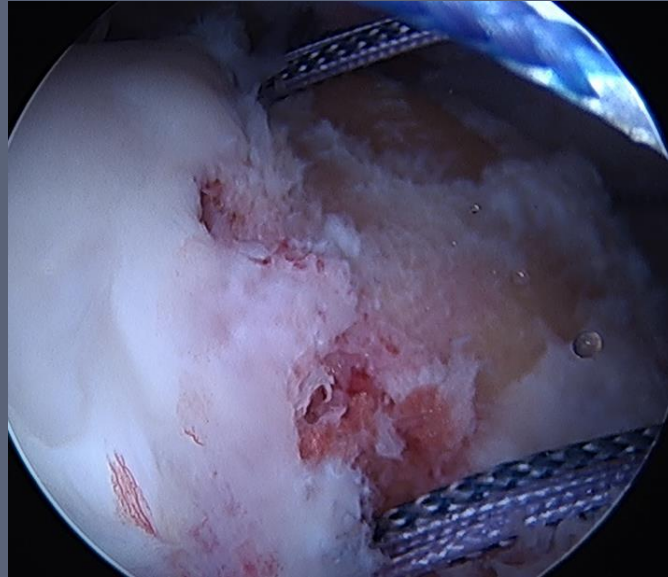


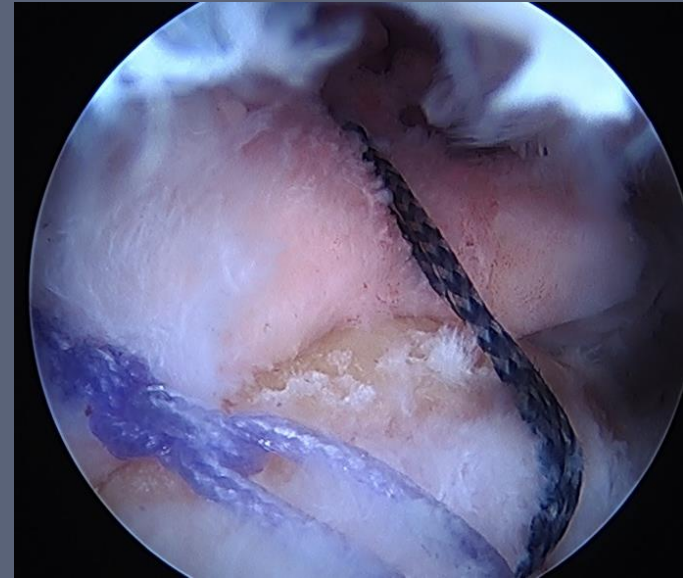
Image from: Am J Sports Med March 2003 vol. 31 no. 2 308-324 <http://ajs.sagepub.com/content/31/2/308/F12.expansion>



Rotator Cuff Repair

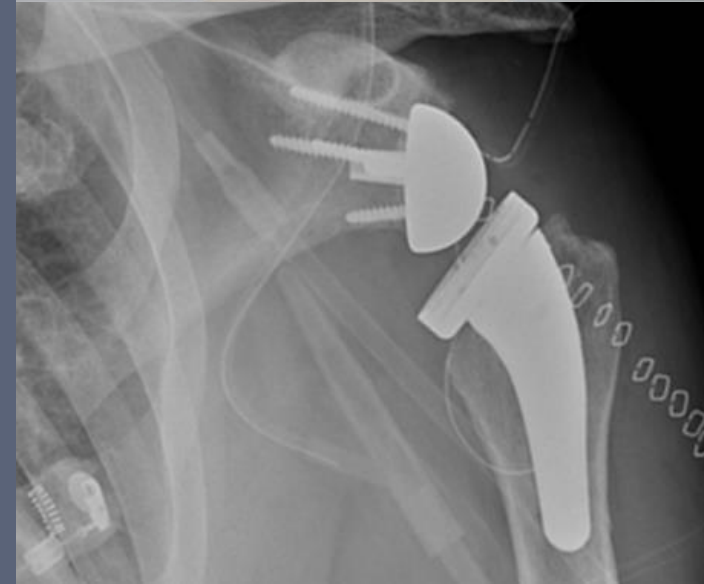
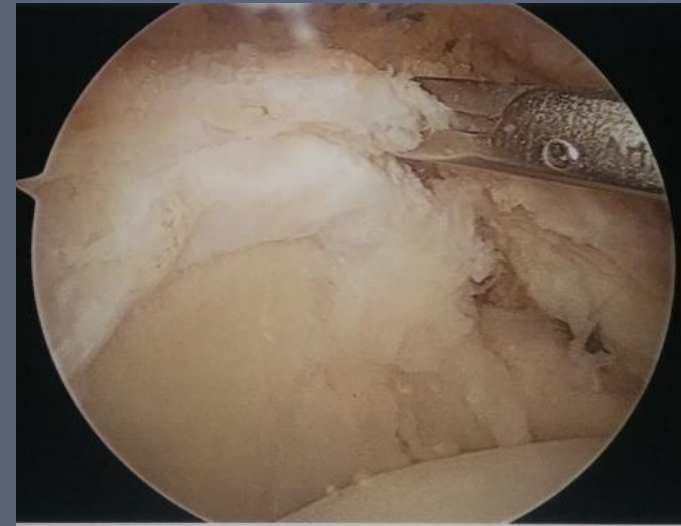


Rotator Cuff Repair



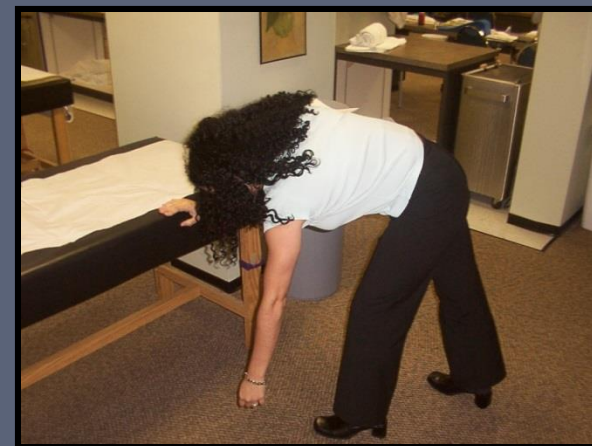
What if it doesn't work? Irreparable tear

- Rare in my practice
- Young Patient
 - Side to side, partial repair
 - Persistent defect with preserved strength
 - Bridge with patch? (Snyder, JSES, 2010)
 - Off-label use by FDA
 - Superior capsular reconstruction
 - External rotation loss – latissimus transfer
- “Older” Patient or presence of OA
 - Reverse (or hemiarthroplasty)



Massive Cuff Tears Therapy

- Sling for 6 weeks (8 if augmented)
- Pendulums only for 4 weeks
- Refer to PT at 4 weeks
 - Passive to go° until 6 weeks
- When do cuff tears fail?
 - Usually early
 - Almost 50% fail (41%)
 - 78% failed in **first 3 months**
 - None failed after 6 months
- Id rather address stiff shoulder than failed repair

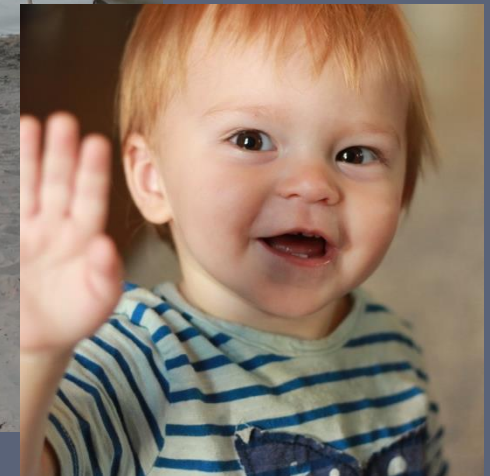


When do rotator cuff repairs fail? Serial ultrasound examination after arthroscopic repair of large and massive rotator cuff tears.

Miller BS¹, Downie BK, Kohen RB, Kijek T, Lesniak B, Jacobson JA, Hughes RE, Carpenter JE.

Am J Sports Med. 2011 Oct;39(10):2064-70. doi: 10.1177/0363546511413372. Epub 2011 Jul 7.

Questions



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