



Pearls for treating the injured worker: Rotator cuff tears

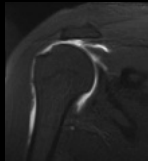
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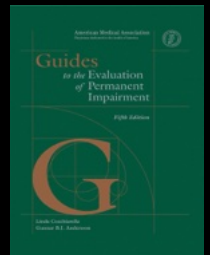
University of Iowa Hospitals and Clinics



My approach to work comp over the last 15 years:

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- outcomes from clinical and biomechanical studies
- iowa state law
- 5th edition guides
- experience



Knee Surg Sports Traumatol Arthrosc (2015) 23:449–459
DOI 10.1007/s00381-014-2470-y

SHOULDER

Decision-making in massive rotator cuff tear

André Tötsch · Philippe Hardy · Klaus Ruk

452 Knee Surg Sports Traumatol Arthrosc (2015) 23:449–459

Systematic Review

Arthroscopic Repair for Chronic Massive Rotator Cuff Tears: A Systematic Review

Patrick Henry, M.D., F.R.C.S.C., David Wymore, M.D., F.R.C.S.C., Sam Park, M.D., Tim Dwyer, M.B.B.S., B.S.A.C.S., F.R.C.S.C., Jankarthy Chahal, M.D., M.Sc., F.R.C.S.C., Gerard Sologram, M.D., M.P.H., F.R.C.S.C., and Emil Schmittsch, M.D., F.R.C.S.C.

After seeing many WC patients over last 15 yrs—
Important to combine rot cuff repair principles/
techniques with goals of work comp/ return to work

Arthroscopic Repair of Massive Rotator Cuff Tears With Stage 3 and 4 Fatty Degeneration

Stephen S. Burkhardt, M.D., Johannes R. H. Barth, M.D., David P. Richards, M.D., Michael B. Zuckerman, M.D., and Mitchell Larson, M.D.

Fig. 1 Treatment of massive rotator cuff tear algorithm. MRI magnetic resonance imaging, MRI magnetic resonance arthroscopy, RT rotator cuff repair, RT rotator cuff repair, RT rotator cuff repair, RT rotator cuff repair



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My thoughts on a work comp shoulder injury:

- 1- if patient has a work-related traumatic shoulder injury, want to know if there is a structural tear asap- MRI
- 2- make causation decision...(mechanism of injury)
- 3- partial tear— often start with injections and PT
- 4- full tear- fix it early with the goal of getting them back to work fully in 4-6 mos.

45 yo male had work injury 6 mos ago
weak and painful with any left shoulder movement



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When to get a shoulder MRI:

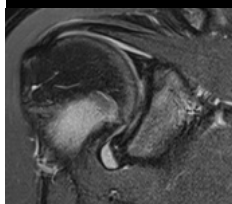
- 1- acute traumatic injury with shoulder pain/weakness
- 2- make causation decision

MRI warning- they are so sensitive and show all sorts of signal in tissues



shoulder MRI conundrum:

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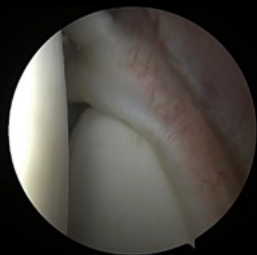
Radiology report:
"suggestive of", "possible"
tear, "suspect" a tear

Glenoid Labrum and Capsule: There is irregular contrast imbibition in the labrum at the 12 o'clock position extending to the 11:30 position consistent with a small SLAP tear, example image 12 of series 4. Otherwise, no obvious labral tear. No large deep glenohumeral chondral defect.

Adjacent Structures: No displaced fracture.

IMPRESSION:

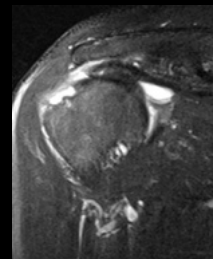
Small SLAP tear.



shoulder MRI:

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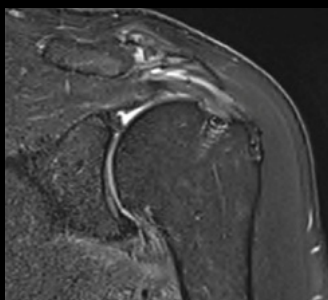
Shoulder MRI is great for acute full thickness rot cuff tears



shoulder MRI warning:

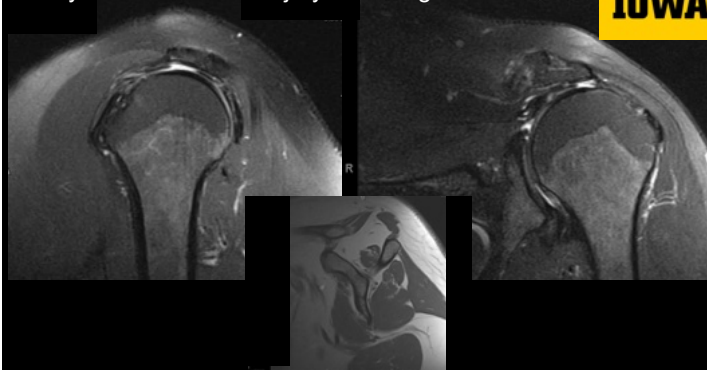
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Shoulder MRI shows signal in tendon after rotator cuff repair-signal is often healing tissues on MRI vs new tear



45 yo male had work injury 6 mos ago

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Considerations:

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- 1- is the tear related to work injury?
- 2- can we fix it?
- 3- do we expect full return to activity/ pre injury level?
- 4- post-operative course? Light duty, full duty?



Work Comp shoulder causation decision:

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Causation Decision:

1- clear traumatic mechanism with MRI findings of a tear.
(straight forward)

2- cumulative: > 30 yrs at repetitive job

patients under 60 with clear structural tearing on MRI
needs to see surgeon for discussion about early surgery



Work Comp shoulder causation decision:

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Gray zone (much of work comp causation)

-no traumatic injury (pain started later, bumped shoulder on door, repetitive lifting)

considerations:

1-prior history of shoulder pain, injections, surgery

2-description of mechanism of injury

3-MRI findings- acute vs chronic (muscle atrophy, edema, tissue quality)



Work Comp shoulder causation decision:

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- 1st day on job, lifted boxes all day, woke up next morning with shoulder pain- muscular soreness

Not a work injury, would not order an MRI



Work Comp shoulder causation decision:

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-felt a pop in shoulder reaching for mail in overhead bin, no previous shoulder pain

Yes a work injury, start with PT and nsais for 4-6 weeks

If not better, get MRI

No tears on MRI- return to work with no restrictions and MMI



Work Comp shoulder causation decision:

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65 yo bumped shoulder on cabinet, no fall, arm by side. Previous history of 3 injections for shoulder arthritis, last injection 4 weeks ago, felt good until work incident.

Shoulder xrays- bone on bone arthritis, nothing acute

Not a work injury, needs shoulder replacement



Work Comp shoulder causation decision:

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65 yo fell down stairs at work 15 years ago causing large rotator cuff tear that was fixed. Did well for 15 years until pain started while lifting a tool at work

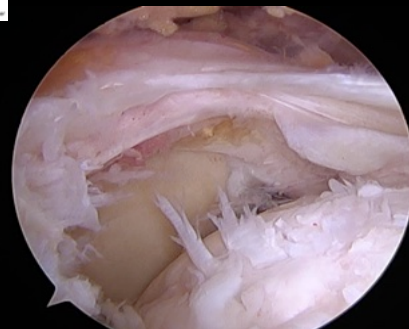
Shoulder imaging- shoulder arthritis and large chronic rotator cuff tear

needs shoulder replacement related to original work injury



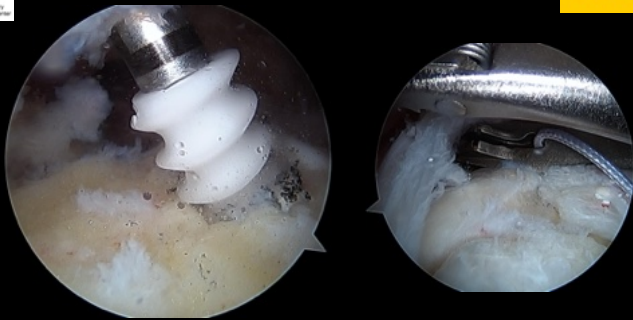
45 yo male had work injury 6 mos ago

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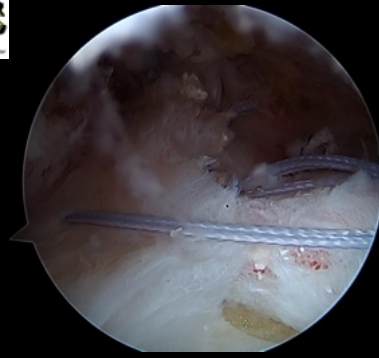




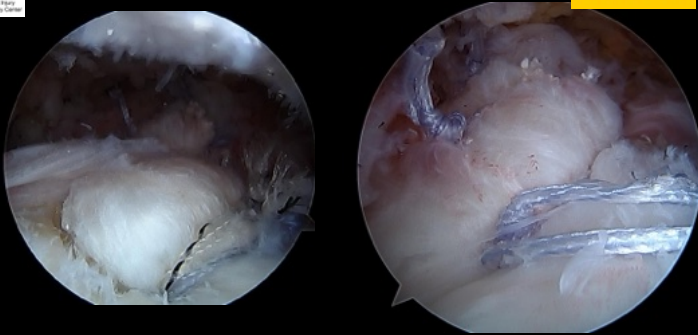
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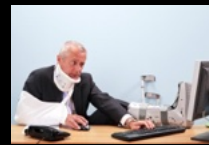
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My thoughts on post-op rot cuff repair:

- advance each visit, even if baby steps
- GOAL- back to work without restrictions 5-6 mos postop (80%)
- our job is to give restrictions- employer can figure out what patient can do..

Post-operative Rotator Cuff Protocol Overview

- 0-2 wks: no work, sling at all times
- 2-6 wks: no use arm, sling at all times, start PT
- 6-12 wks: 3 lb push pull lift, obtain full sh ROM
- 3-6 mos: improve strength, advance restrictions, work hardening?



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My thoughts on post-op rot cuff repair:

- Around 3 mos--
- 1- aggressive giving injections if having pain/ inflammation to help them turn the corner
- 2- set expectations early on MMI, return to work



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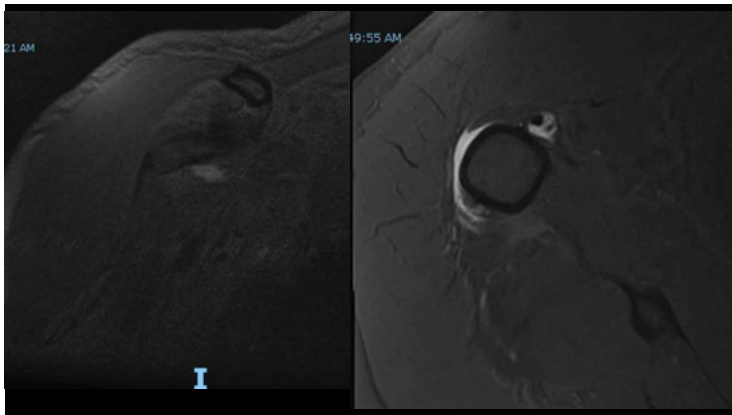
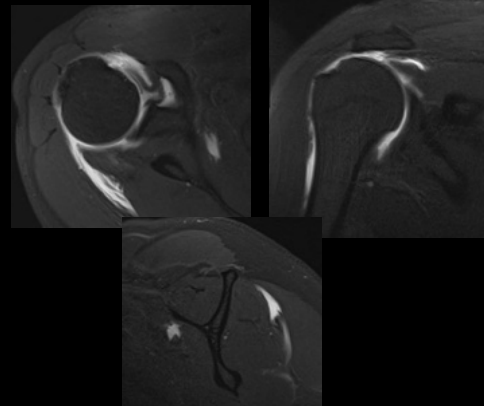
My thoughts on post-op rot cuff repair:

6 mos:

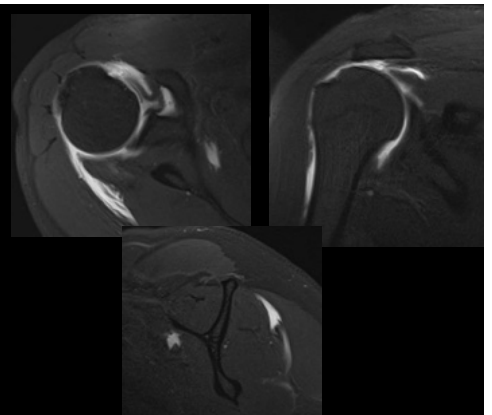
1- no restrictions vs FCE (when needed) vs permanent restrictions

2-permanent partial impairment rating in my clinic note

62 yo male truck driver fell getting out of semi



62 yo male truck driver fell getting out of semi



Geometric Classification System

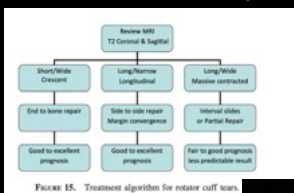
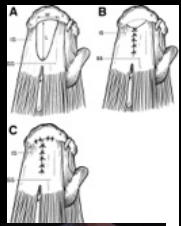


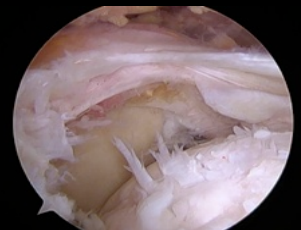
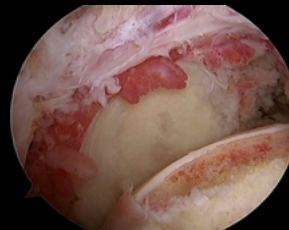
FIGURE 85. Treatment algorithm for rotator cuff tears

Arthroscopy 2010
Steve Burkhart

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62 yo male truck driver fell getting out of semi

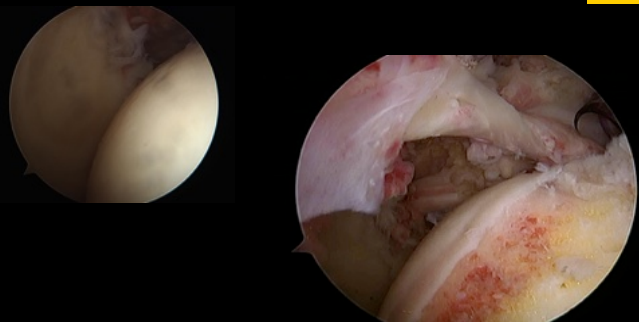
As a surgeon, need to figure out how to put it back together



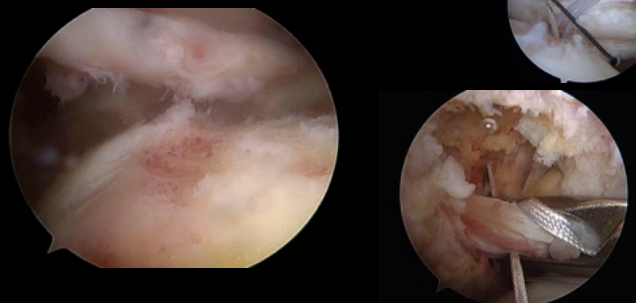
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62 yo male truck driver fell getting out of semi

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62 yo male-repair subscap 1st

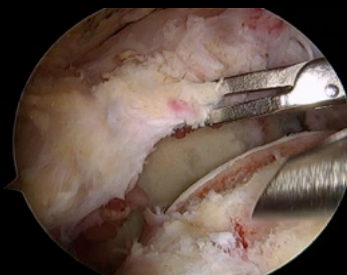


Fixing subscap 1st takes tension off the supraspinatus repair

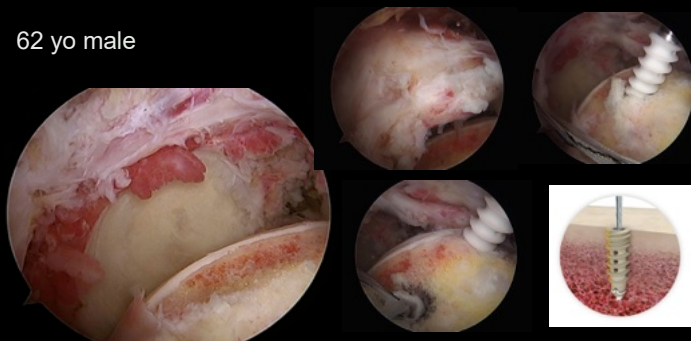


62 yo male- preparation for repair

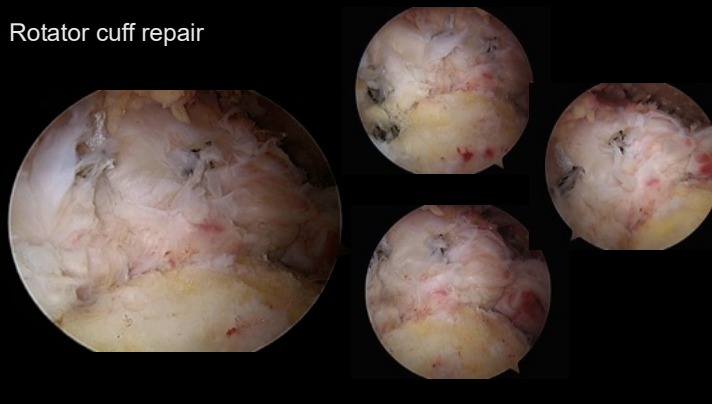
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62 yo male



Rotator cuff repair



Post-operative PLAN

0-6 wks: sling at all times, no driving

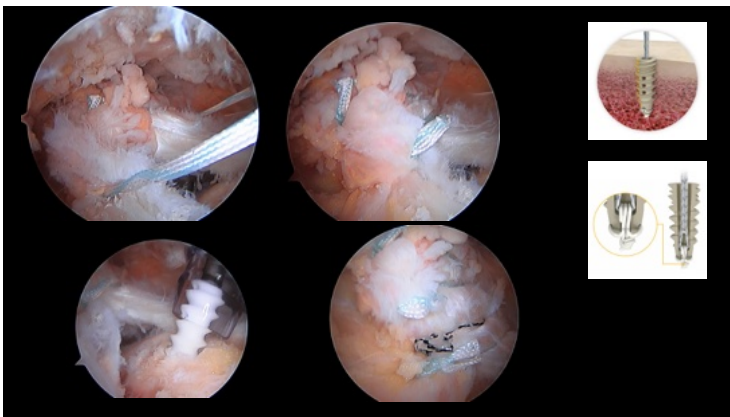
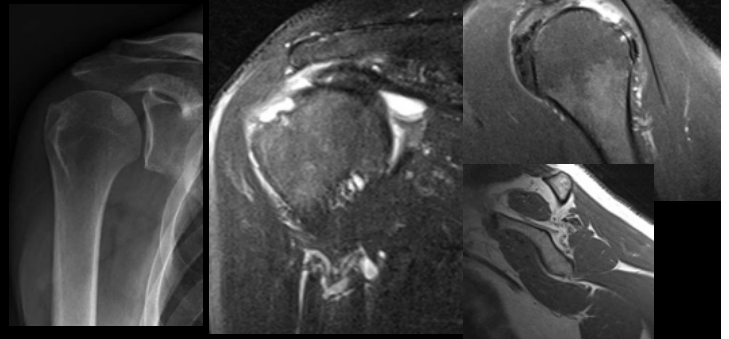
6-12 wks: no lift push or pull more than 5 lbs, obtain full sh ROM

12-20 wks: 10-15 lbs push pull lift, improve strength

6 mos: return to work full duty



67 yo male lifting heavy box, fell at work



Post-operative PLAN

0-6 wks: sling at all times, no driving

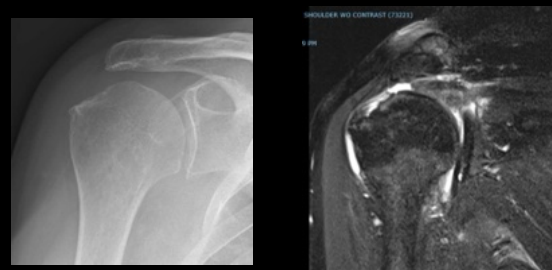
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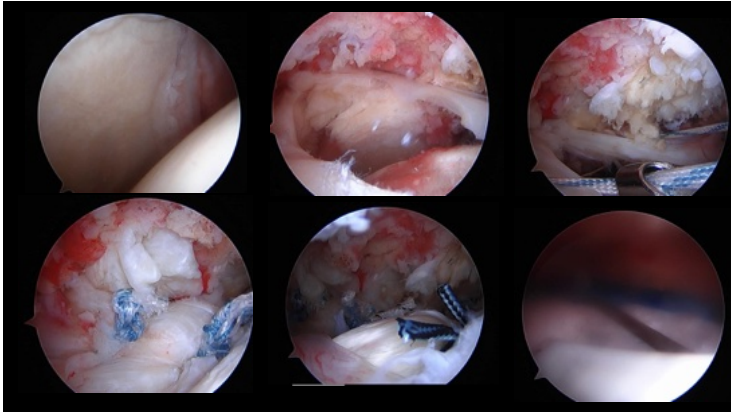
12-20 wks: 10-15 lbs push pull lift, improve strength

6 mos: return to work full duty



56 yo female felt a pop lifting a heavy box





Post-operative PLAN

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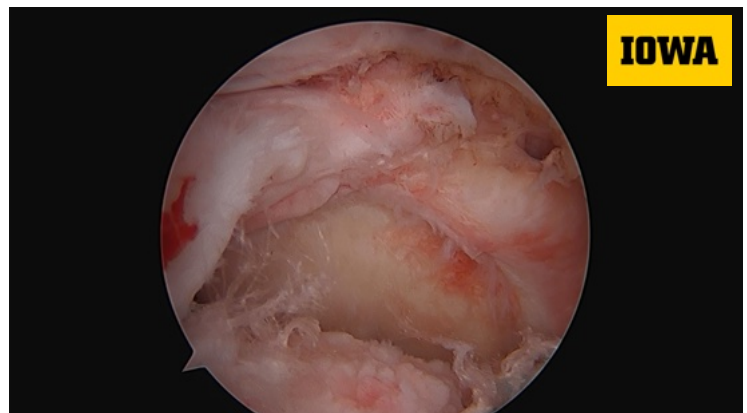
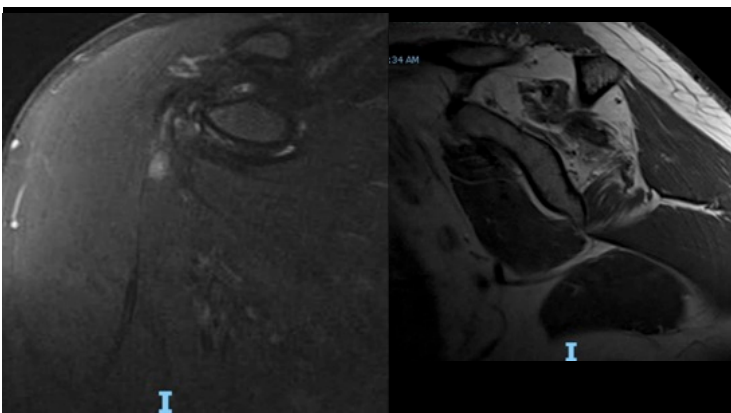
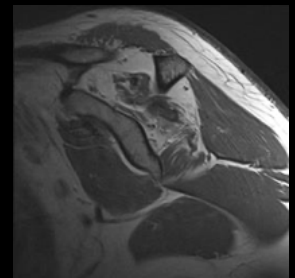
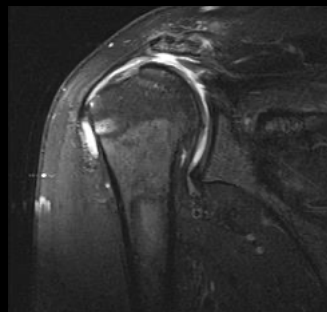
6 mos: return to work full duty

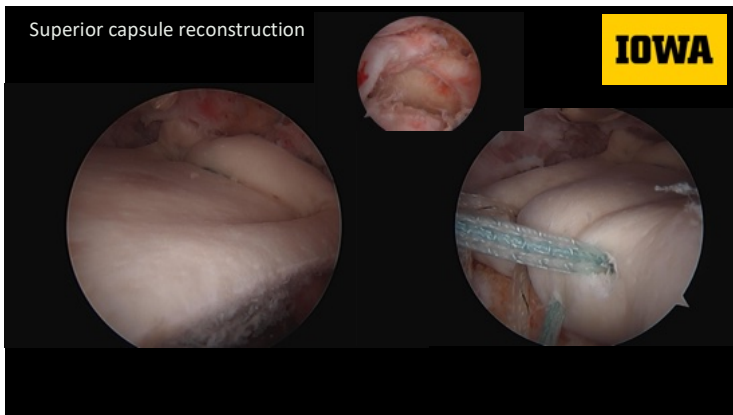
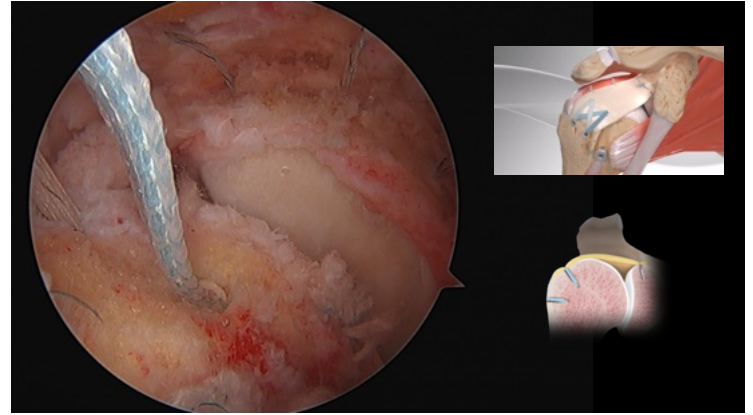
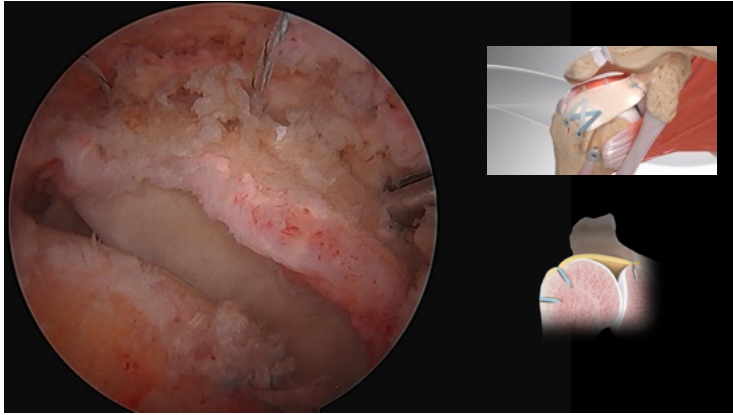


50 yo male factory worker with shoulder pain after work injury 5 yrs ago.
2 previous rotator cuff repairs at outside institution



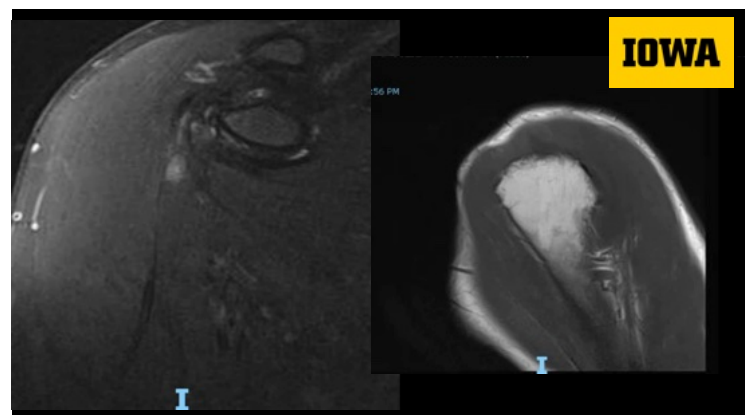
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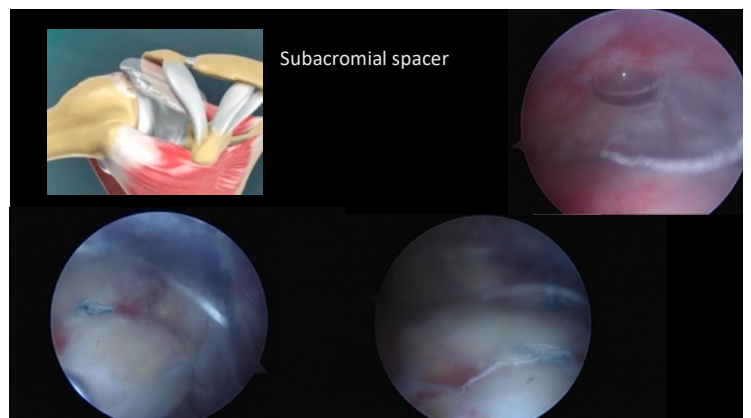
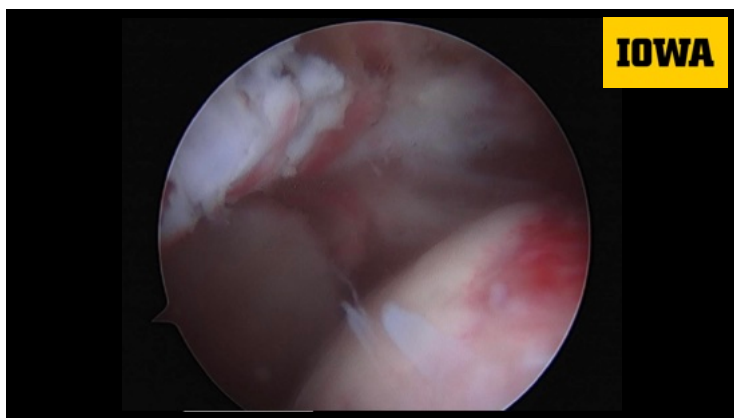
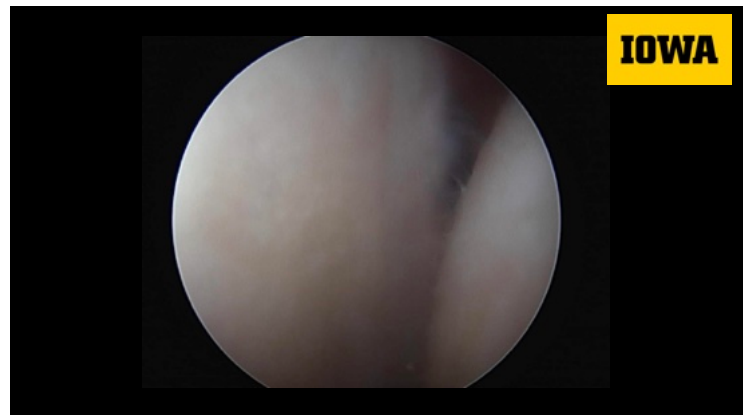
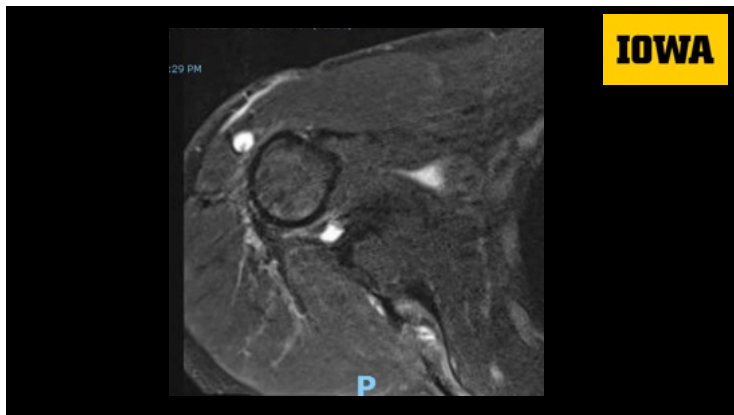




Post-operative PLAN

- 0-6 wks: sling at all times, no driving
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- 12-20 wks: 10-15 lbs push pull lift, improve strength
- 6 mos: return to work full duty

 Two small images are included: one showing a patient lying in bed with their arm in a sling, and another showing a worker wearing a yellow hard hat and a blue jacket, talking on a mobile phone.




Post-operative PLAN

0-2 wks: sling at all times, no driving

2-6 wks: no lift push or pull more than 5 lbs, obtain full sh ROM

6-12 wks: 10-15 lbs push pull lift, improve strength

4-5 mos: return to work full duty

Work Comp hang-ups:

- 1- dragging feet on acute structural injuries
- 2- not making quick causation assessment on degenerative/ arthritic conditions
- 3- letting the post-op course continue too long
- 4- failure to clearly specify long-term prognosis

Work Comp: ARTHRITIS

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Causation: the key is figuring out timing of work injury on spectrum of arthritis development.
(xray and MRI comparisons)

make early causation decision

thoughts on the difficult work comp patient for case managers/ adjusters:

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1-don't be scared of patients who have a lawyer

2- some people are going to have pain no matter what we do

3-it is ok to say nothing more to do, just say no.

Conclusion

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Work comp Considerations:

- 1- is the tear related to work injury?
- 2- can we fix it?
- 3- do we expect full return to activity/ pre injury level?
- 4- post-operative course? Light duty, full duty?
- 5- back to work without restrictions, long-term treatment needed?



Pearls for treating the injured worker: Rotator cuff tears

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