

The Shoulder and The Cuff: 100 years in 1 hour

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Tonight's Goals

- Highlight Importance of the cuff
- Understand the Normal shoulder
- Diagnosing cuff disease
- Treatment strategies
- Sprinkle in some science
- Recognize the controversies
- Audience stories



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Why so excited?

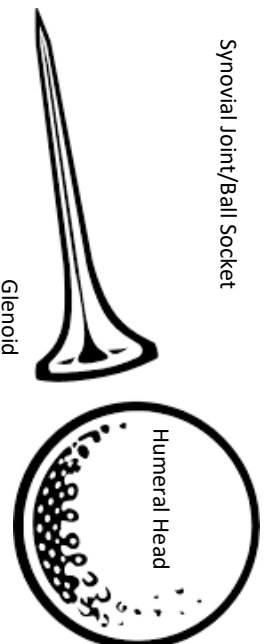
- » 100 year ago. "Soft parts between the bones"
- » Incidence 40-60% between ages of 40-60
- » Affects work, play, and sleep



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Normal shoulder

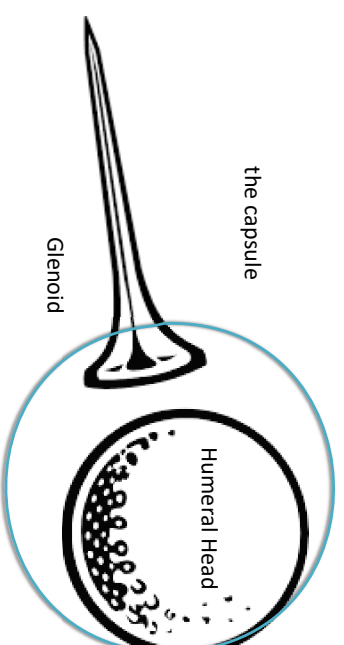
Synovial Joint/Ball Socket



Not the Hip

Normal shoulder

the capsule



Round on Flat

The Musculature



Tendons

- Outside the capsule are the tendons of the rotator cuff.
- Tendons are where muscles attach to bone.
- Muscle pulling on bones through tendons produces movement at joints.



Shoulder: coupled forces

- » Forward Flexion matches Extension
- » Abduction matches Adduction
- » External Rotation matches Internal Rotation
- » The cuff balances the shoulder
- » Keeps the Golf ball on the Tee



Rotator Cuff function

- » Supraspinatus=abduction
- » Infraspinatus=external rotation
- » Teres Minor=external rotation
- » Subscapularis=internal rotation
- » S.I.T.S. balances the shoulder



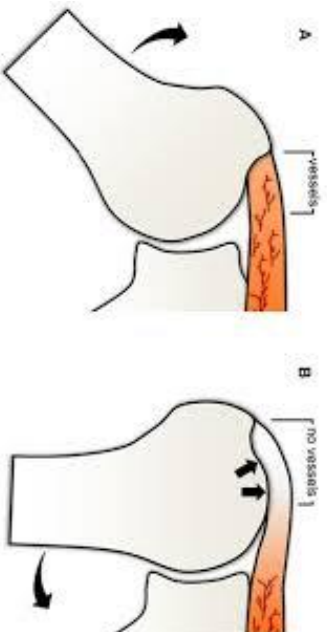
Causes of Cuff injury

Impingement of the Shoulder



Watershed Zone

Intrinsic Factors



How do cuff tears cause pain?



Pain

- » General inflammation
- » Bursitis
- » Capsulitis
- » Imbalance of the shoulder. Spasms.
- » 40% of cuff tears can have NO symptoms
- » 90% surgical success rates with 40% re-tears on imaging



How do I know that I have a cuff tear?

HOW?

Physical examination

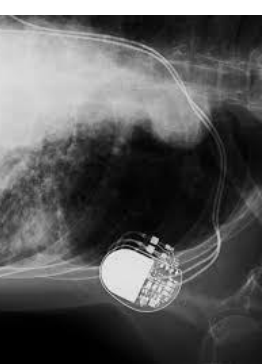
- » Postural exam
- » Muscle development
- » Shoulder examination
- » Provocative tests
 - » Empty can, Jobe, Belly press, Bear hug, Lift off, Lag

History

- » Provider interview
- » Detailed story
- » When do you have pain
- » Where do you have pain
- » Age
- » Occupation
- » Sports
- » History of accumulated trauma

Imaging

- » Xrays
- » Ultrasound
- » MRI
- » Needle scopes
- » CT arthrograms



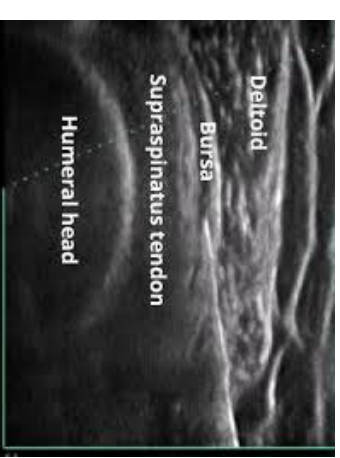
Xrays

- » Often Normal
- » Acromial spur



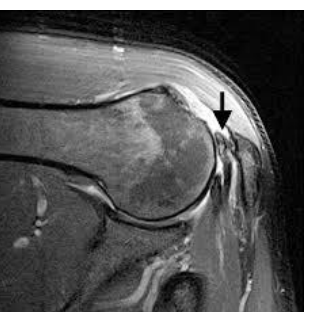
Ultrasound

- » Gaining acceptance in United States
- » Popular in Europe
- » Comparable to MRI



MRI

- » Amazing images
- » Accurate
- » Comparable to Ultrasound



- » Detailed story
- » Thorough physical exam
- » Complete imaging
- » Diagnostic accuracy
- » I have a cuff tear

Now what?

As a patient....

What to ask your provider

- » Natural history of cuff tear
- » Partial or Full thickness? Severity?
- » Common interventions
- » Treatment outcomes
- » What would you do if this were your shoulder?
- » Am I affected by pain or dysfunction?
- » S.A.N.E

Treatment

- » Tincture of time
- » Physical therapy
- » Injection- Steroids, PRP, Prolo, Stem cells
- » Surgery- smooth or fix
- » Revision surgery- re-fix, SCR, In-Space
- » Patient education and understanding



Treatment Strategies

- » Treat the pain or Treat the dysfunction
- » What are my goals? short, mid, long term
- » Do I have 6 months to rehab?
- » Can I be in a sling for 6-8 weeks?

Thank you

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