

Diagnostic Ultrasound of the Shoulder

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Objectives:

Discuss the diagnostic and procedural uses of musculoskeletal ultrasound for shoulder pathology

Practice diagnostic evaluation of the shoulder using ultrasound, including assessment of the biceps tendon, subacromial bursa, and rotator cuff tendons



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Shoulder Anatomy – Positions

1. Tendon of long head of biceps brachii
2. Subscapularis
3. Supraspinatus and infraspinatus tendons
4. Acromioclavicular joint, subacromial subdeltoid bursa
5. Posterior glenohumeral joint

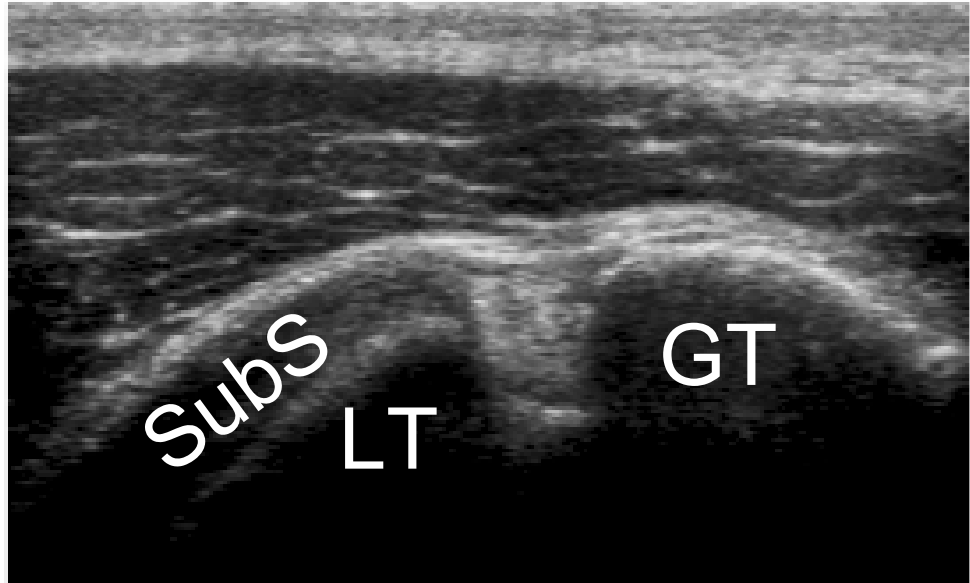
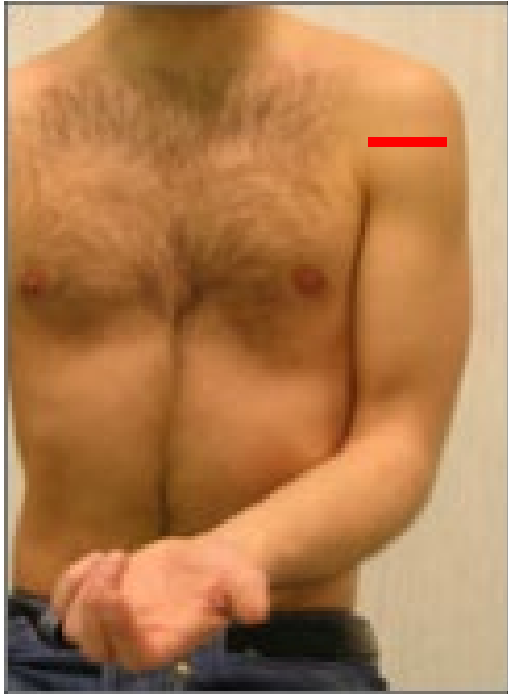


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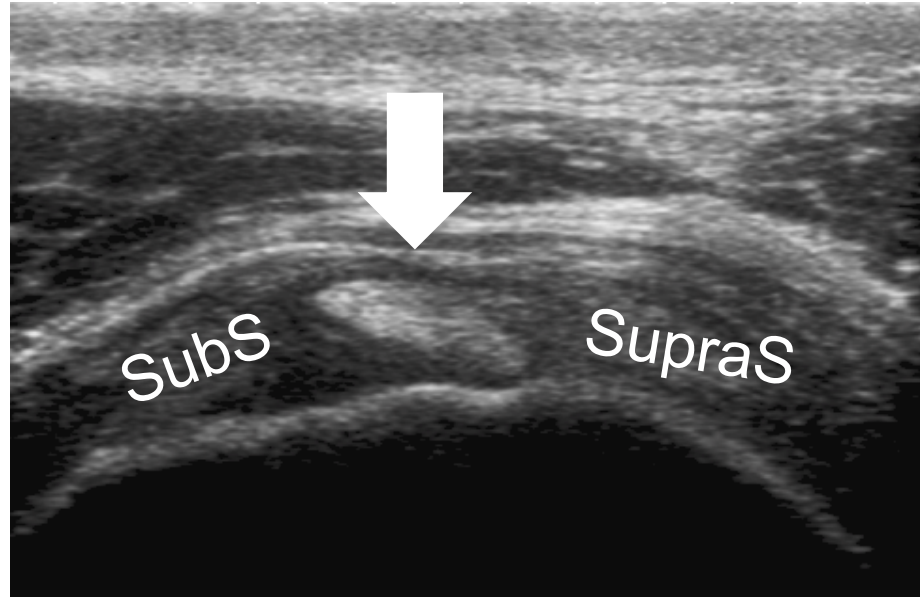
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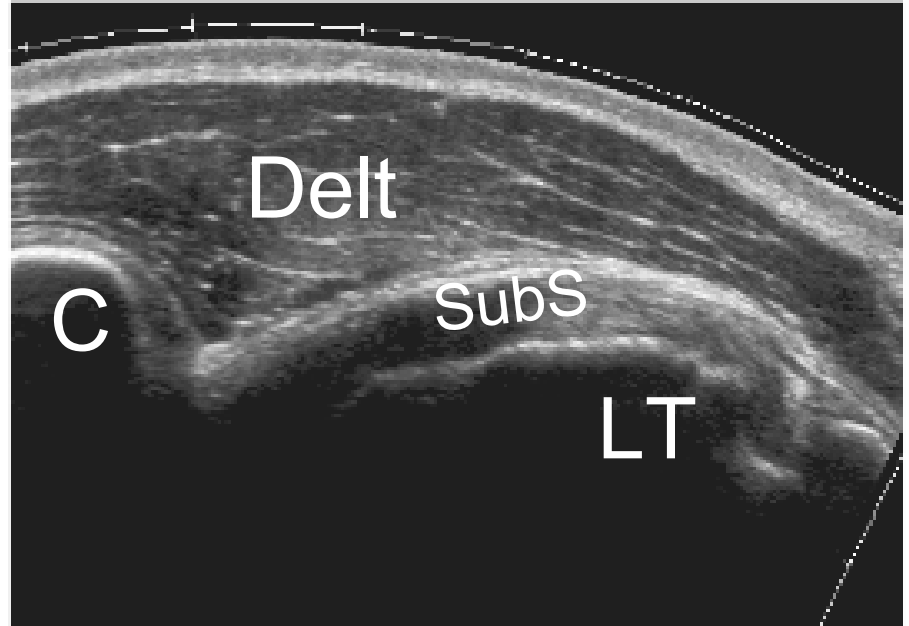
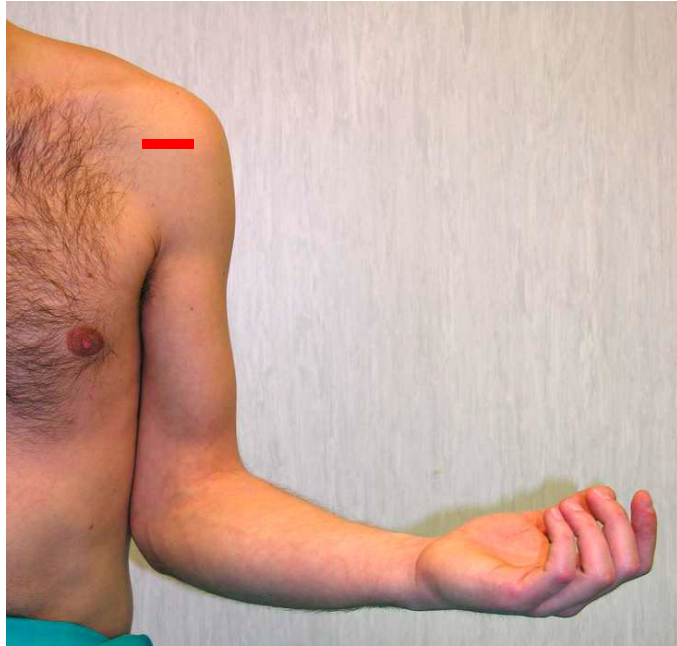
Shoulder Anatomy – Long head of biceps



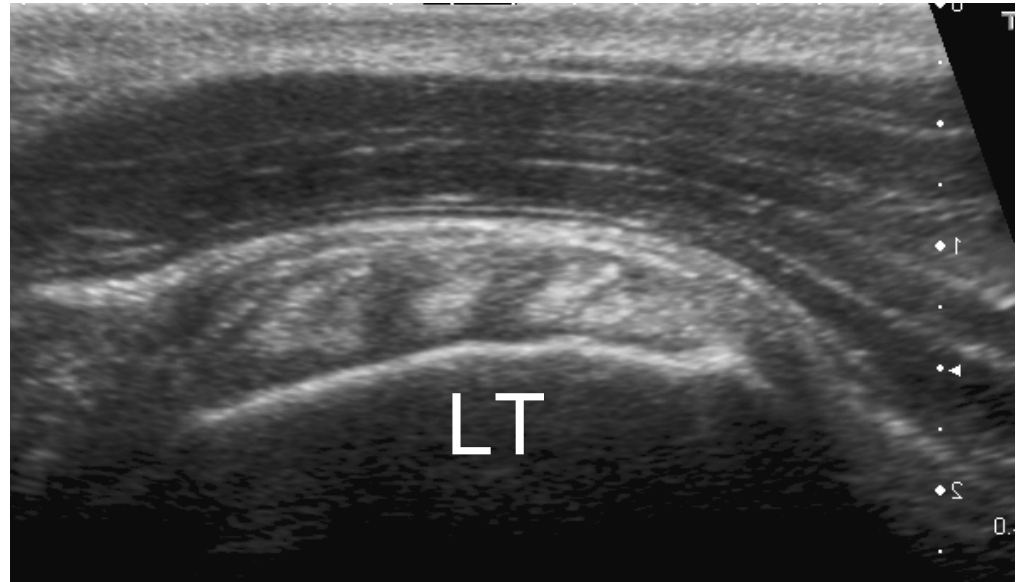
Shoulder Anatomy - Long head of biceps



Shoulder Anatomy - Subscapularis



Shoulder Anatomy - Subscapularis



Shoulder Anatomy – Supraspinatus positioning



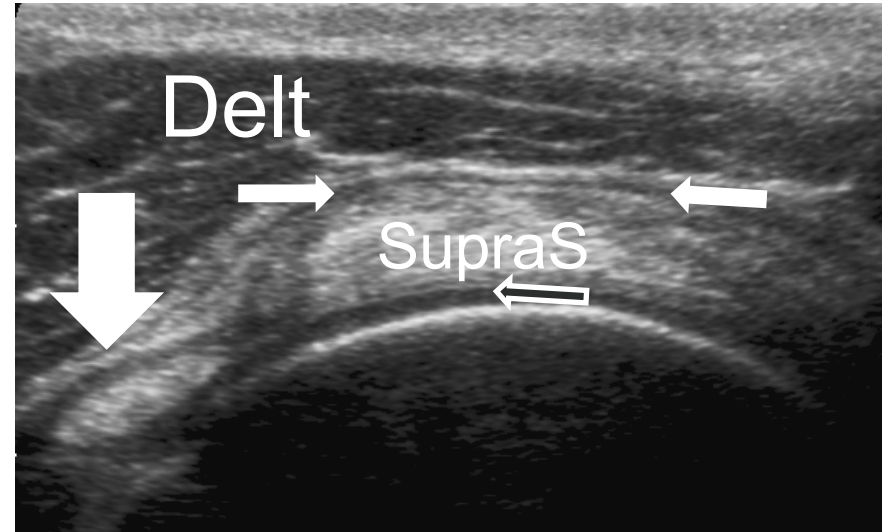
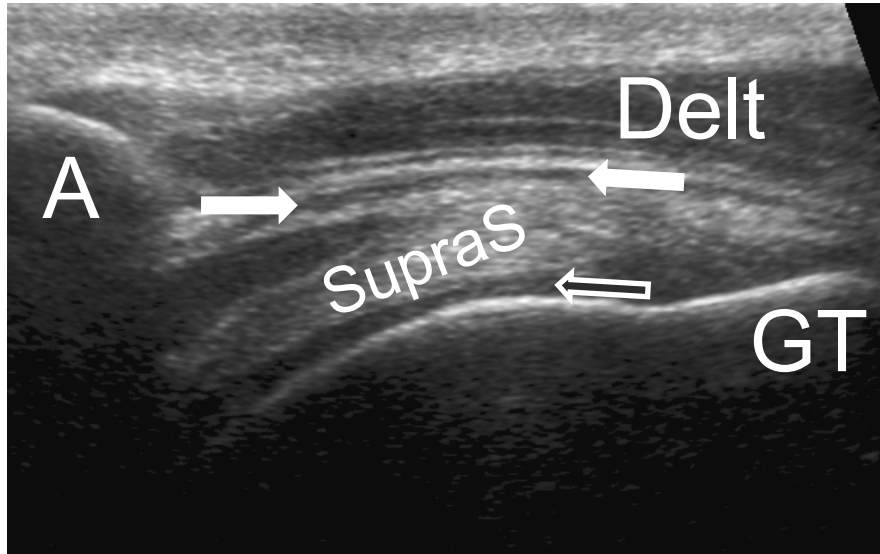
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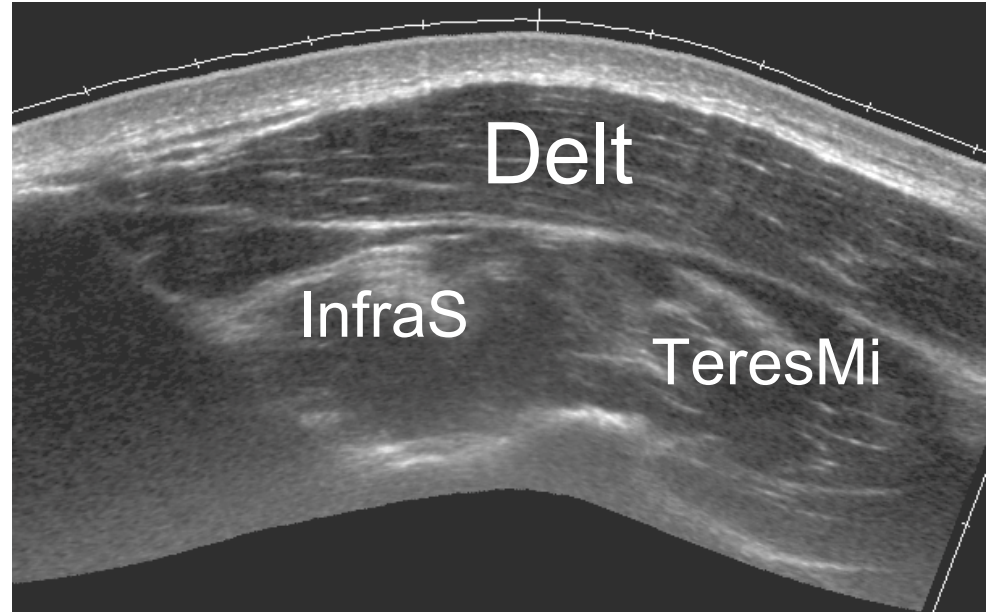
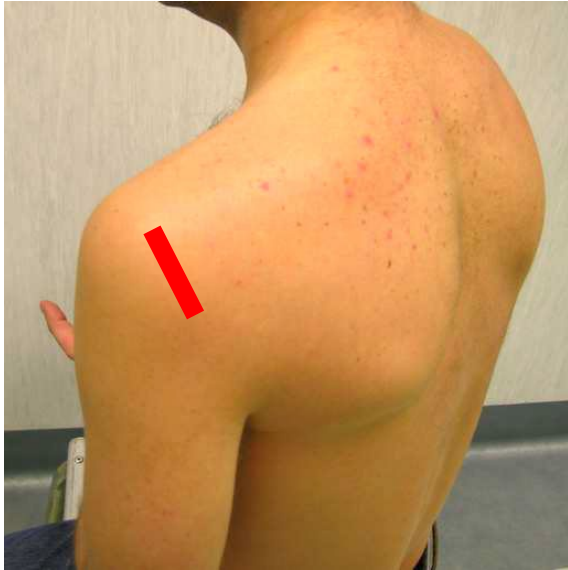
Shoulder Anatomy - Supraspinatus



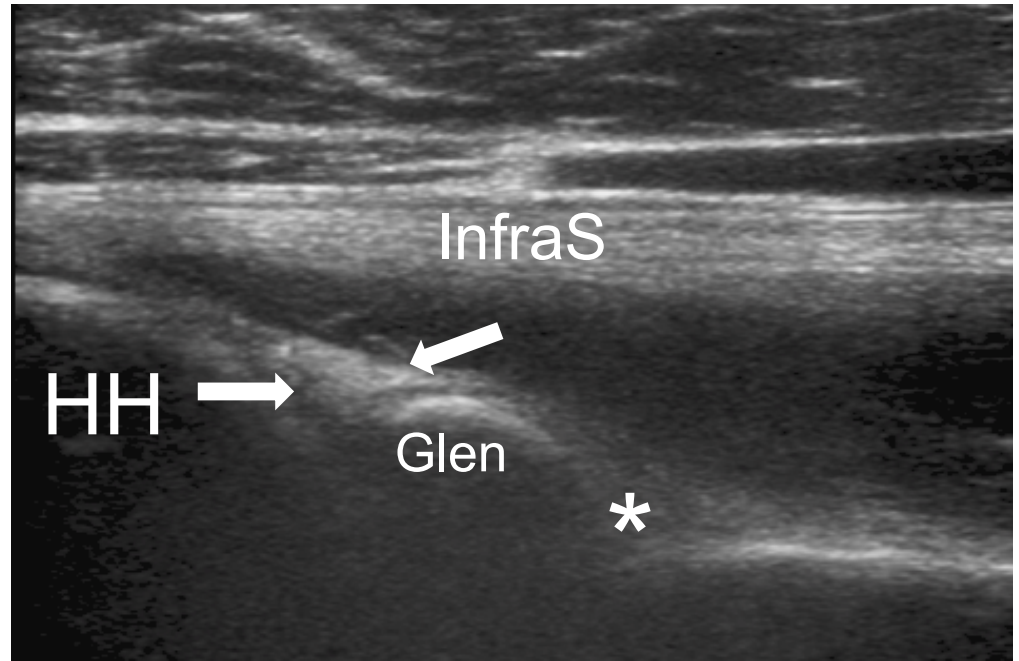
Shoulder Anatomy - Supraspinatus



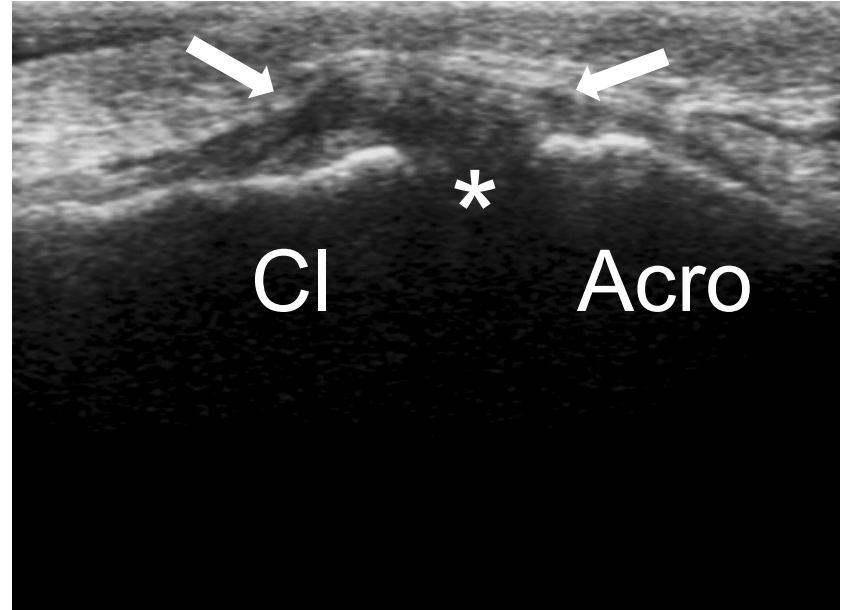
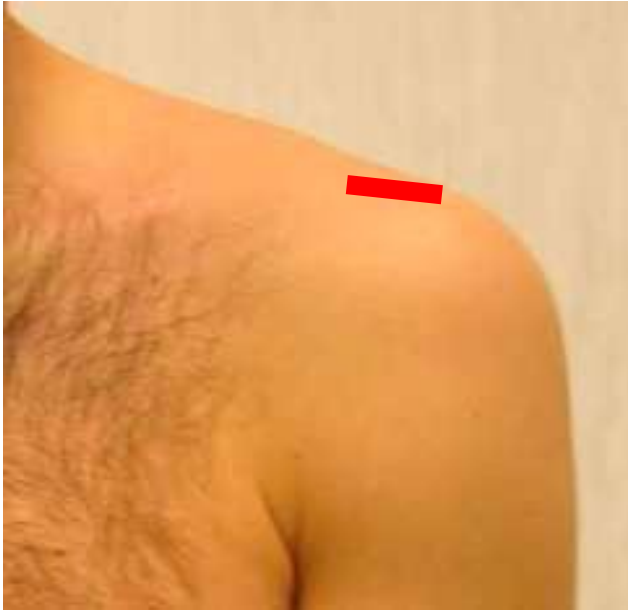
Shoulder Anatomy - Posterior



Shoulder Anatomy – Posterior/ GH Joint



Shoulder Anatomy - AC joint



Shoulder Pathology

Common shoulder conditions that can be evaluated by US:

- Biceps tendon pathology, including tendinopathy, tears, and tenosynovitis, as well as biceps tendon subluxation with dynamic ultrasound
- Rotator cuff tendinopathy and tears
- Subacromial bursitis
- Glenohumeral joint arthritis

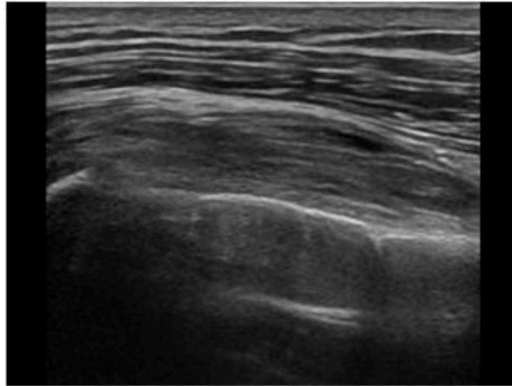
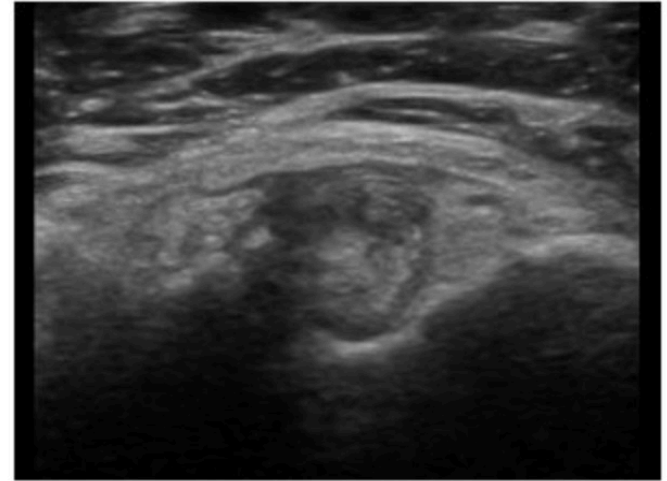
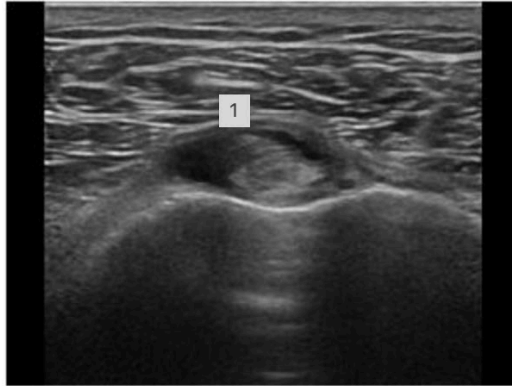


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Biceps Tendinopathy

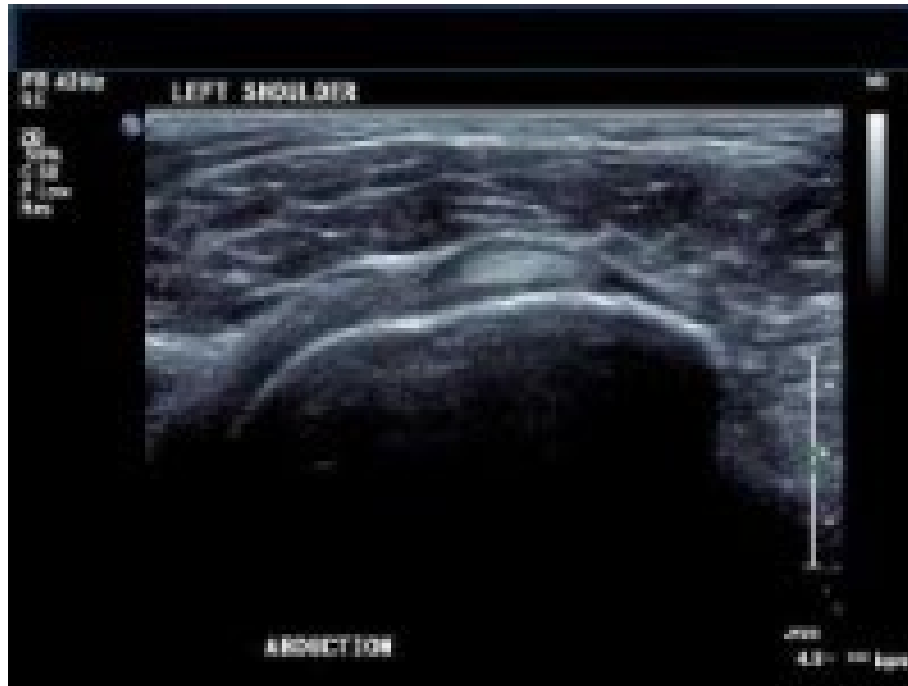


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<https://www.ultrasoundcases.info/biceps-tendon-tendinopathy--->

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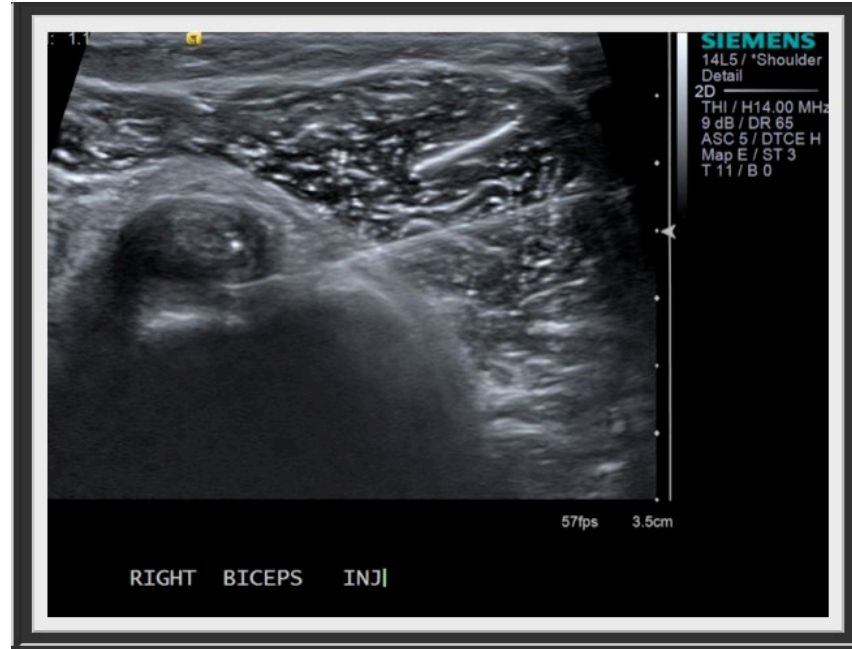
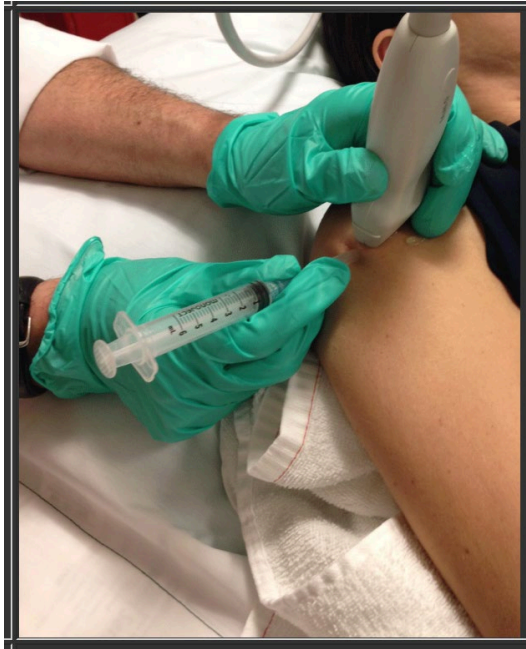
Biceps Tendon Subluxation



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Biceps Tendon Sheath Injection

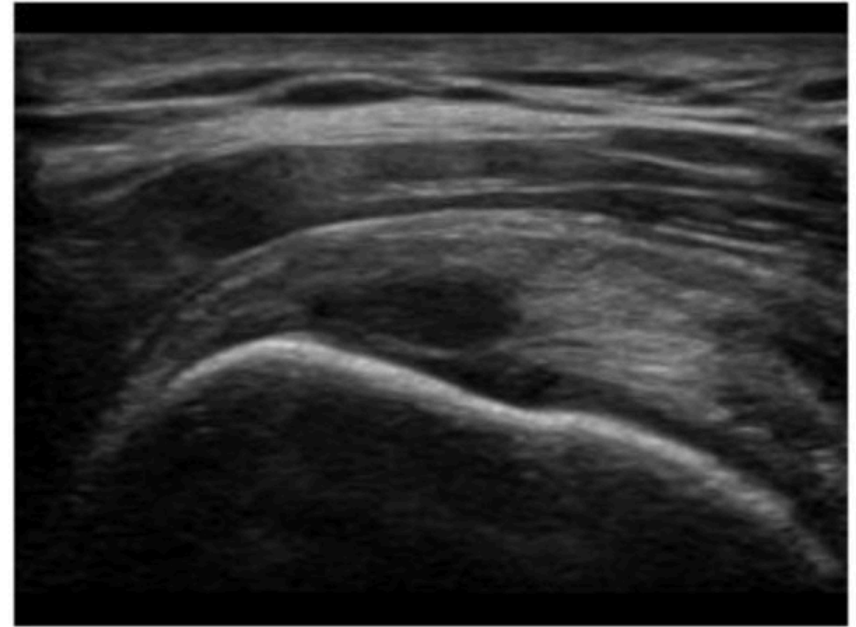


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<https://mskultrasoundprocedures.com/Procedures/BicepsTendonSheath.html>

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Subacromial Bursitis and Supraspinatus Tearing



<https://www.ultrasoundcases.info/supraspinatus-tendinosis-and-impingement-5447/>

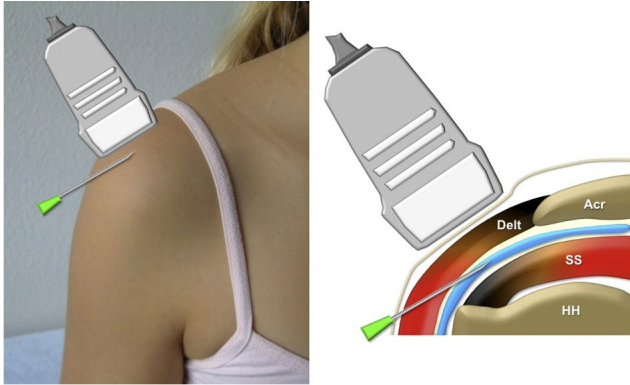


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<https://radiopaedia.org/articles/subacromial-subdeltoid-bursitis>

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Subacromial Bursa Injection



Molini, Lucio et al. "US guided corticosteroid injection into the subacromial-subdeltoid bursa: Technique and approach." *Journal of ultrasound* 15 1 (2012): 61-8 .



<https://www.youtube.com/watch?v=hdCA6Kh4OGY>

Now let's practice!



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