

Anatomy of the Shoulder

- Mustafa Rashid
- ST3 Trauma & Orthopaedics
 - Percivall Pott Rotation

Me and a Cowboy...



Aims

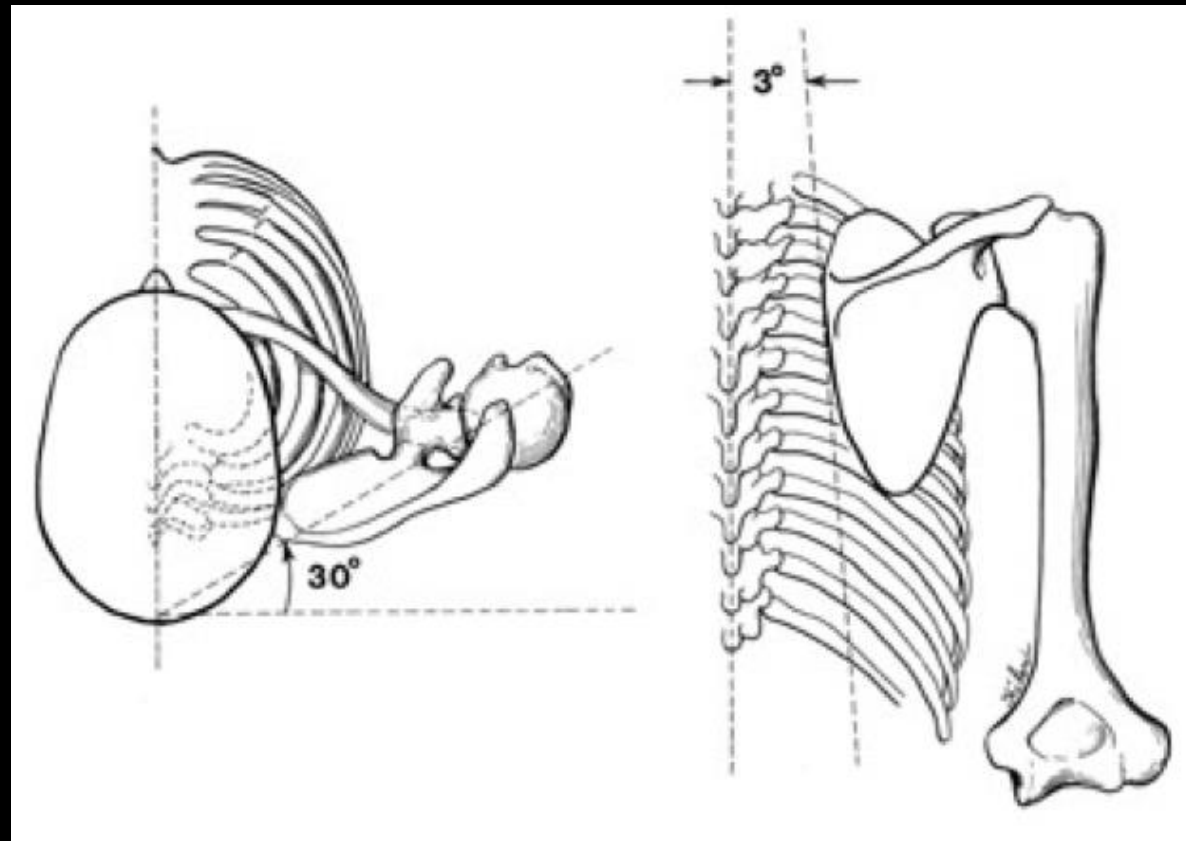
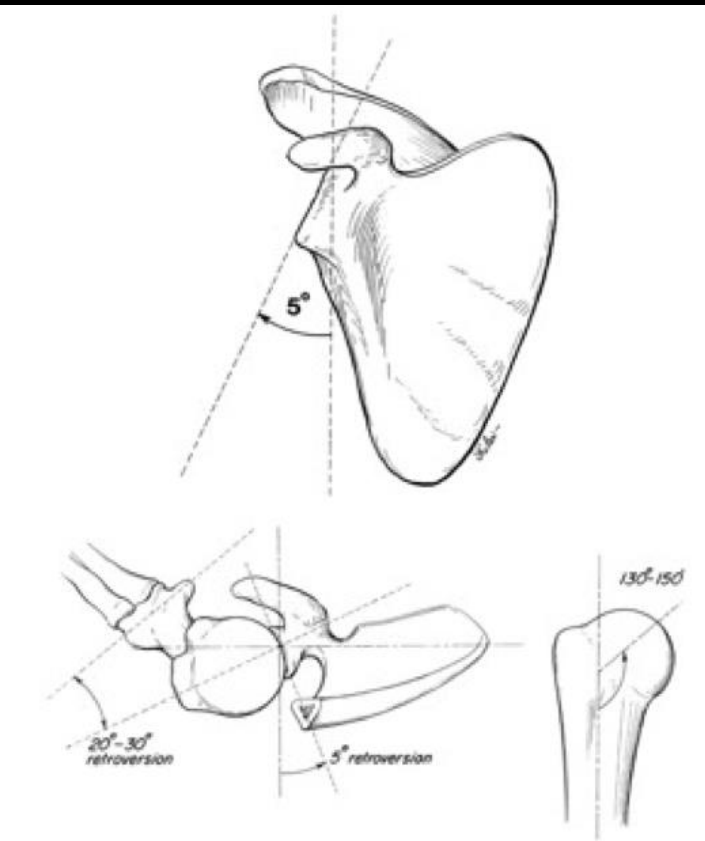
- Brief introduction
- Bony anatomy
- Static stabilisers of the GH joint
- Dynamic stabilisers of the GH joint
- Arthroscopic anatomy of the GH joint

Introduction

- Glenohumeral joint is a synovial ball and socket joint
- Ball is mean 43mm in diameter and the glenoid is 1/3 the size of humeral head
- Glenoid is highly congruent (1% deviation) to the humeral head
- Commonest joint to experience instability

Bony Anatomy

Bony Anatomy



Glenoid fossa:

- 9mm in sup-inf plane
- 2.5mm in AP plane (5mm with labrum)

Neurovascular Structures

- Axillary nerve

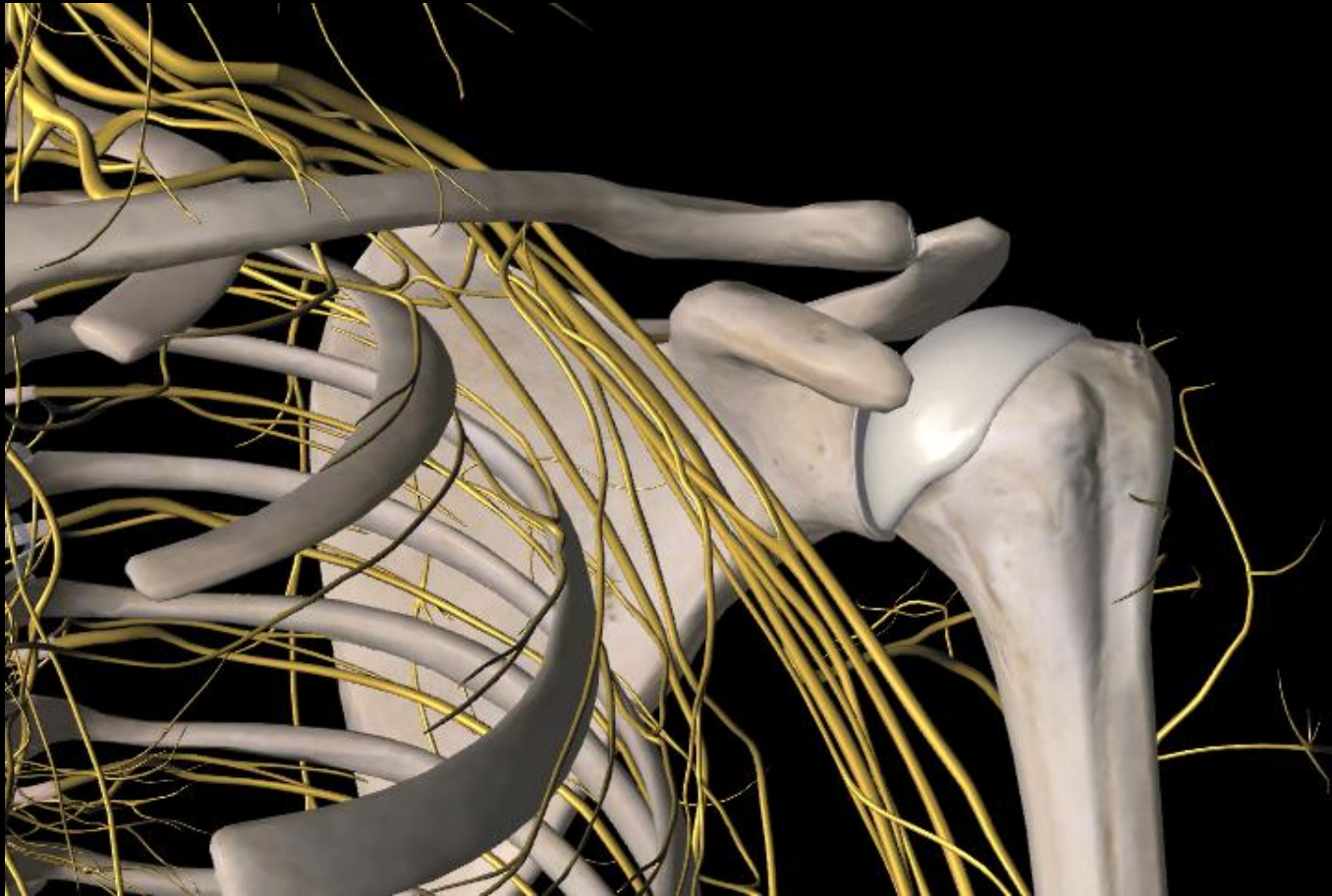


- Musculocutaneous nerve

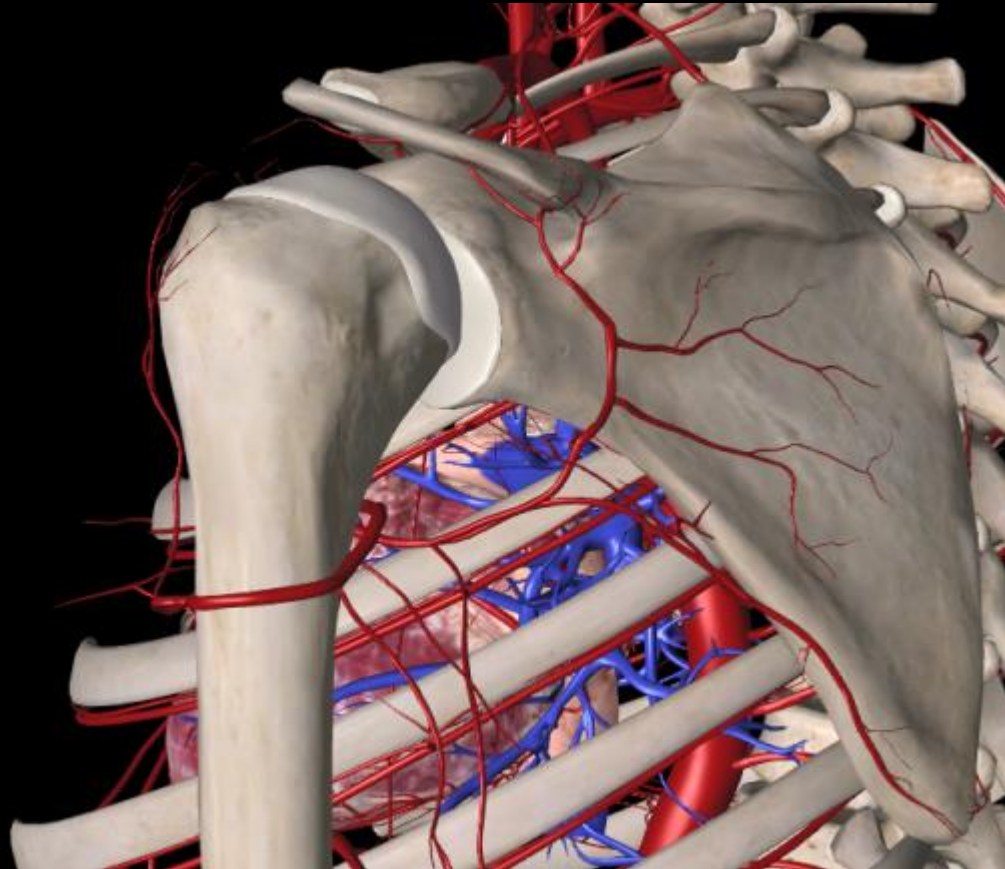


Neurovascular Structures

- Brachial Plexus



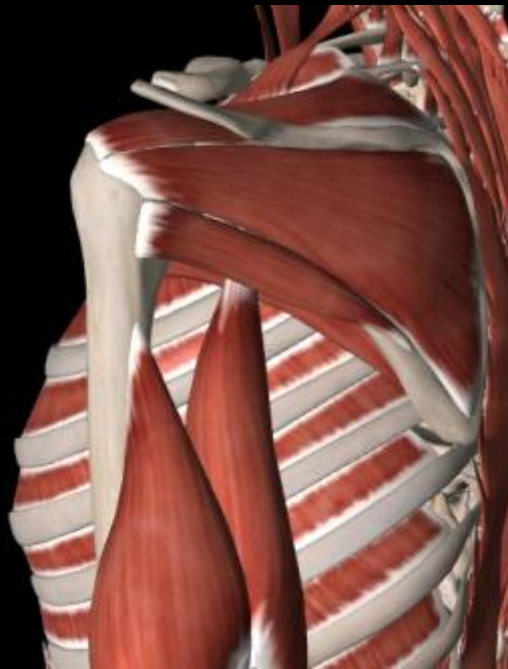
Neurovascular Structures



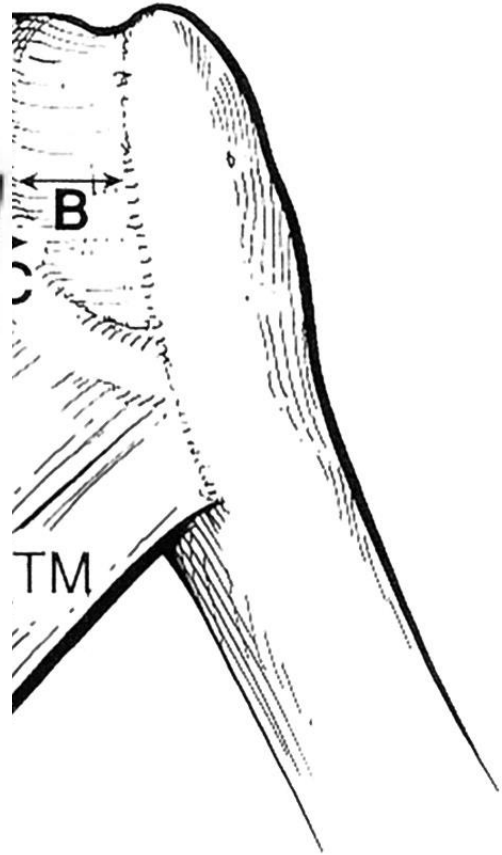
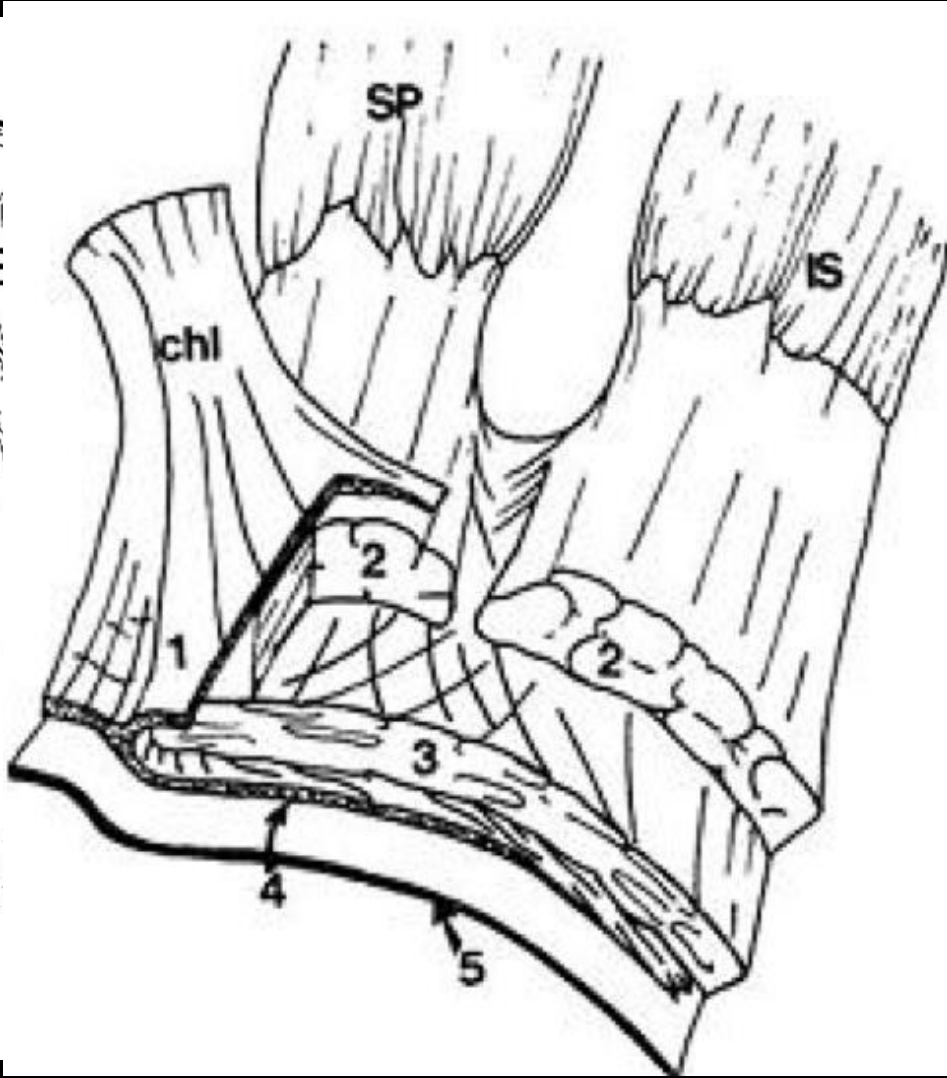
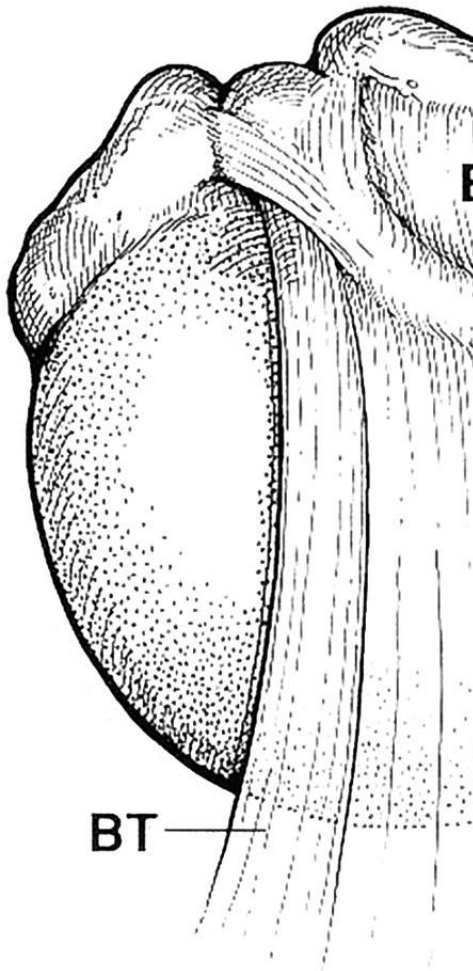
Muscles (I)



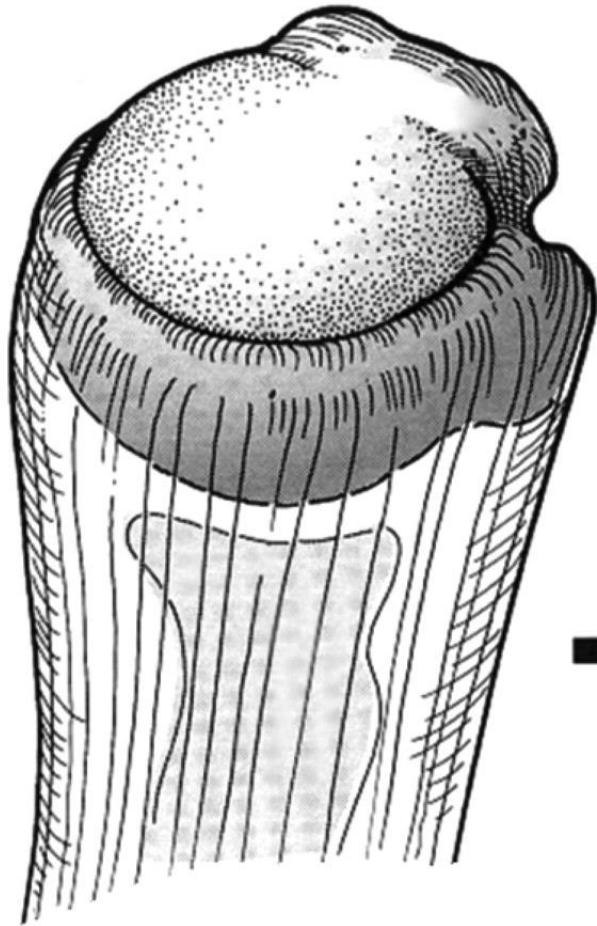
Muscles (II)



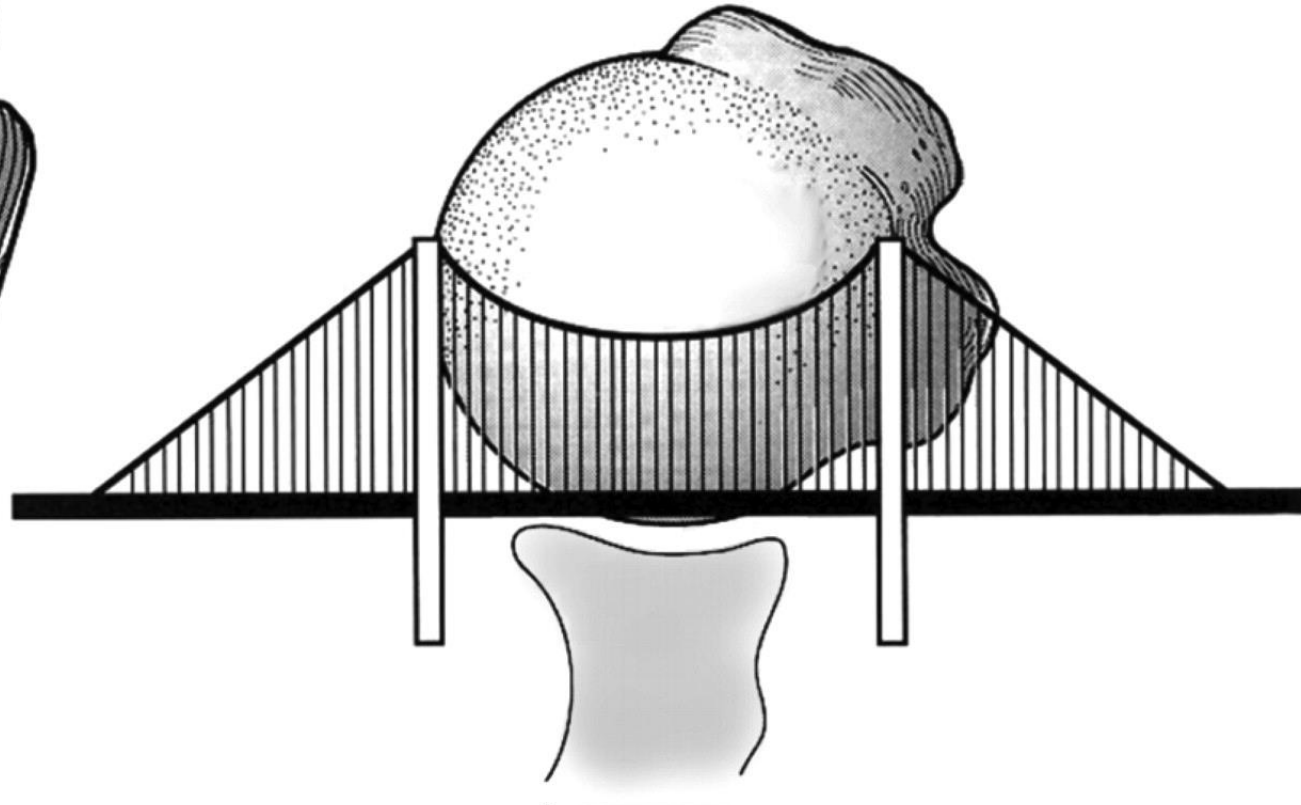
Cuff Tendon



Cuff Tendon



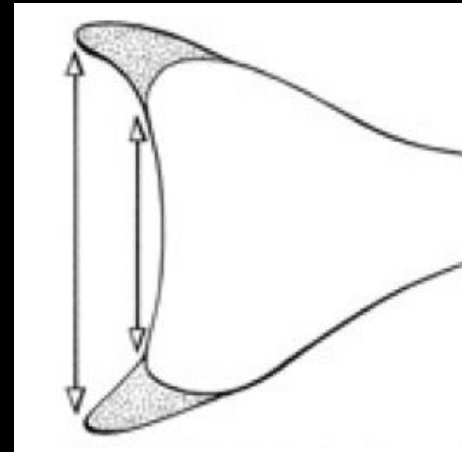
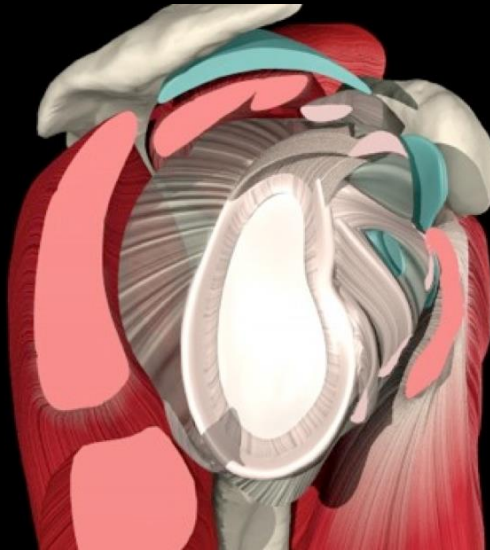
A



B

Static Stabilisers

- Articular version
- Labrum
- Articular conformity
- Negative intra-articular pressure
- Capsule ligaments
- Rotator cuff



Static Stabilisers

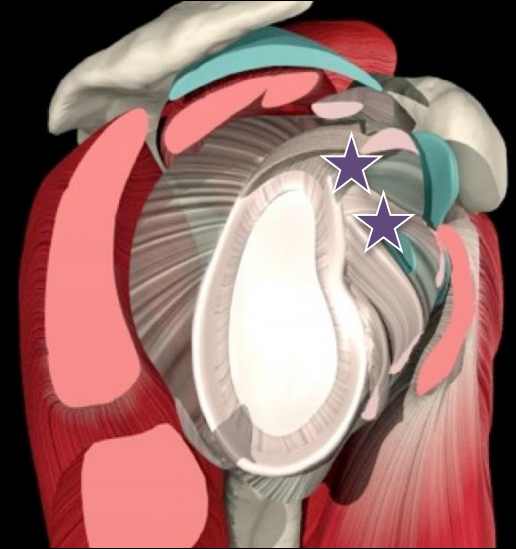


Static Stabilisers



Static Stabilisers

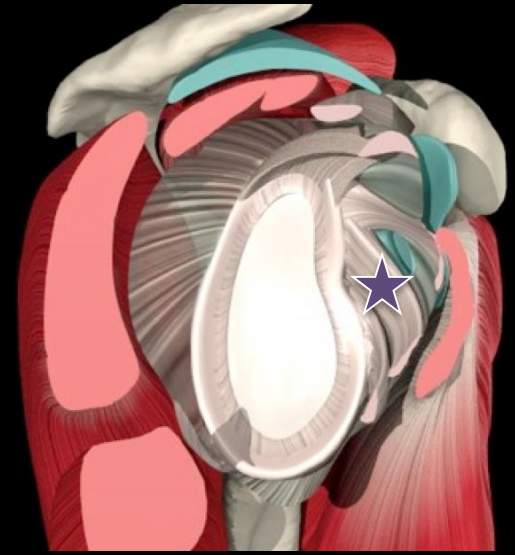
- Coracohumeral ligament
 - From coracoid to both tuberosities
 - Most consistently present condensation
- SGHL
 - Present in 90%; substantial in 50%
 - Just anterior to LHB → proximal lesser tuberosity
 - Important inferior stabiliser (most in ER)



Static Stabilisers

- MGHL

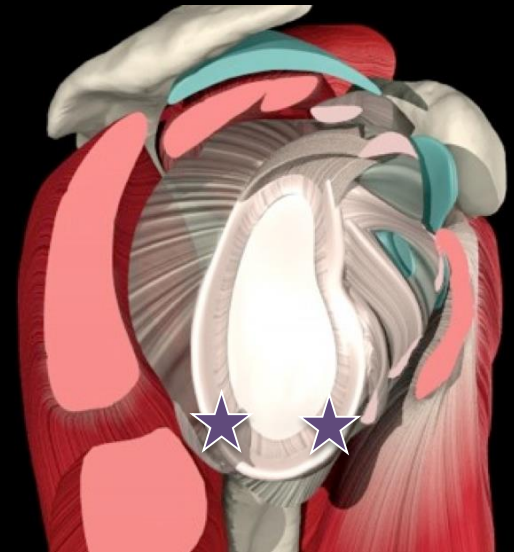
- Absent in 30%
- Inferior to SGHL
- Blends with SSc 2cm medial to insertion to LT
- Max tension in ER and lower angles of abduction (anterior stabiliser)
- Secondary restraint to inferior translation



Static Stabilisers

- IGHL

- “Hammock”
- Critical role in inferior and anterior stability
- Anterior labrum (anterior to posterior) to articular margin of humeral head
- Anterior band tight in abduction and external rotation
- Posterior band tight in flexion and internal rotation

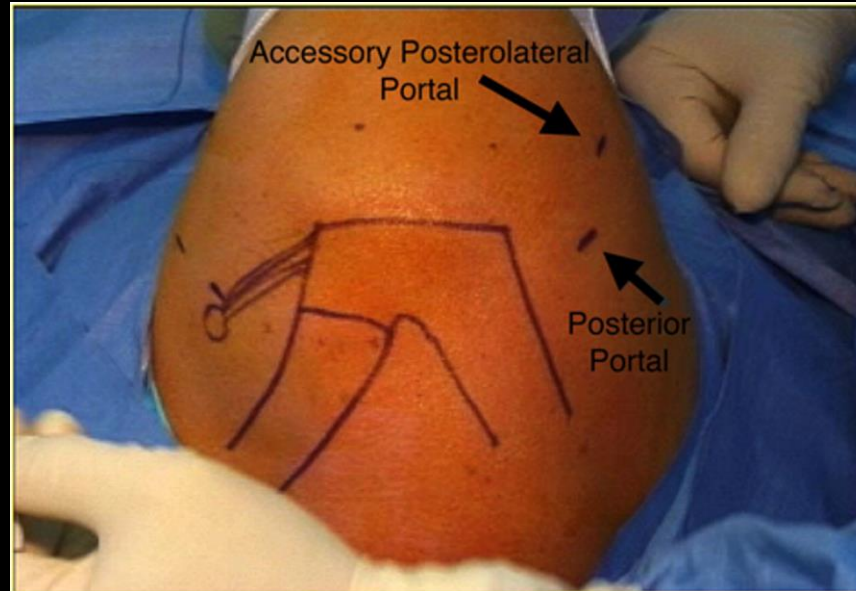


Dynamic Stabilisers

- Concavity compression
- Direct capsular tension
- Proprioception
- Scapular stabilisers
- Dynamic muscle action
- Biceps*



Arthroscopic Anatomy



Arthroscopic Anatomy



Arthroscopic Anatomy

- Viewing from posterior portal...

#1, Biceps tendon

Arthroscopic Anatomy

- Viewing from anterior portal...

Points 11–15
view from anterior portal

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Thank you.