

Shoulder Joint Dislocation

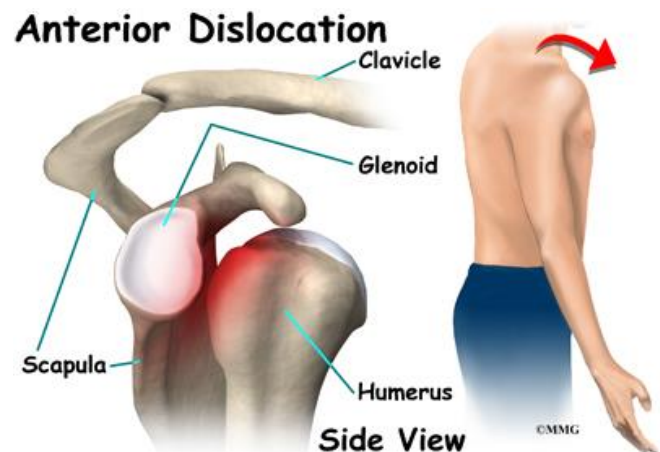
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Background

- Very rare in childhood. Teenage injury (≥ 12 years), usually only occurs after fusion of growth plates.
- ANTERIOR dislocation most common type. Posterior dislocation rare (2-4% of shoulder dislocations in adults).
- Displacement occurs when head of the humerus is pulled forward and down from the glenoid cavity of the scapula.
- Results from – FOOSH with external rotation of the arm, or
 – violent pull on the arm outwards and back, or
 – blow to back of arm which forces head of humerus forward.

Assessment

Only AFTER providing **adequate analgesia**



Patient presents with adducted and internally rotated arm (held against the body).
 Flattened appearance of shoulder and a hollow under the acromion.
 May be able to palpate the head of humerus in its anterior and inferior position.

Use a **LOOK, FEEL, MOVE** approach.

LOOK: Compare the shoulders: front, back, and side.
 Is there any asymmetry?

FEEL: Assess sensation and major nerve function.
 Check axillary nerve dermatome (Regimental Badge Sign)

MOVE: Patient will be unable to move shoulder actively.
 Any passive movements will be extremely painful.

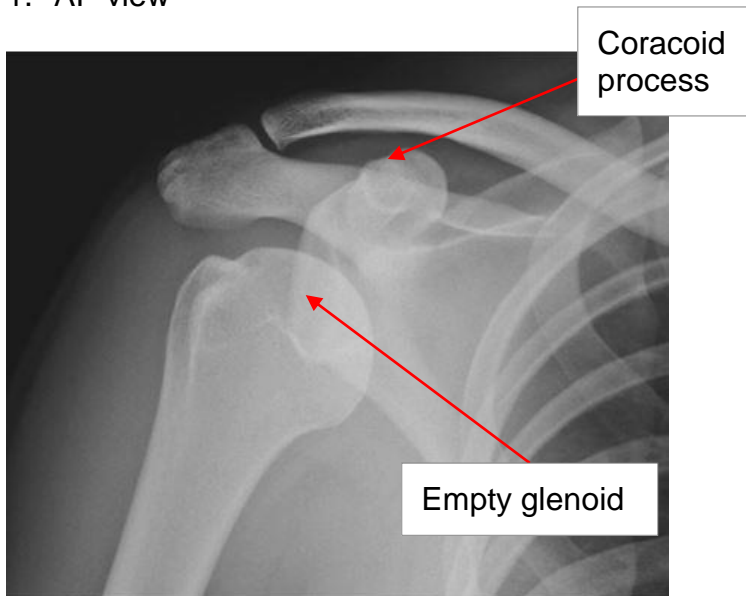


X-rays

- At BSUH we get an AP and a scapular “Y” view
- The position of the humeral head relative to the glenoid is the most important criterion for dislocation.

Findings in **anterior dislocations**:

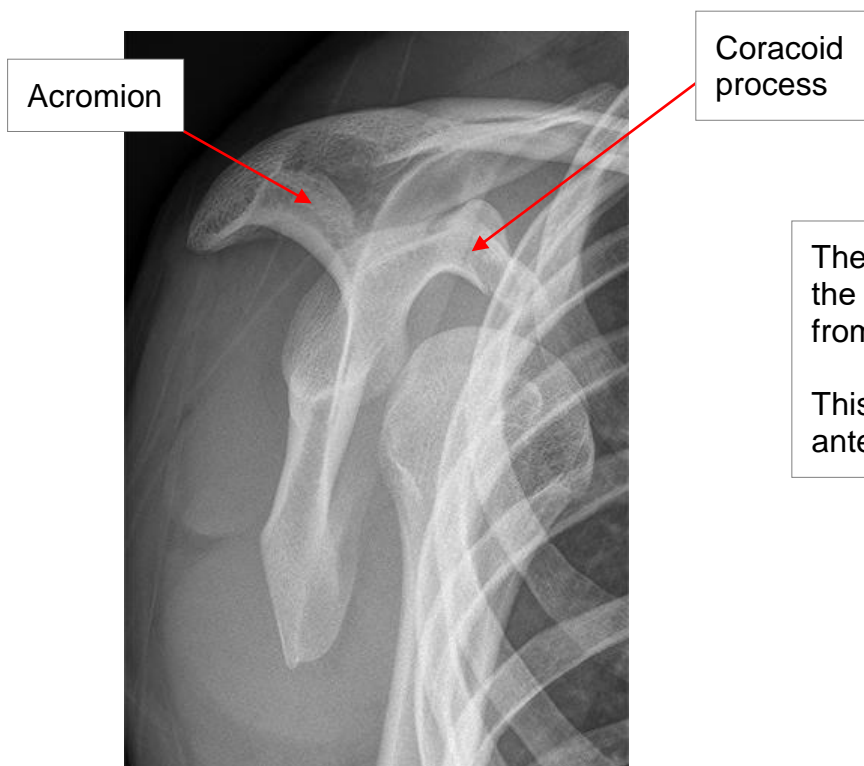
1. AP view



The humeral head is positioned anteriorly, medially and inferiorly.

The head is in the sub-coracoid position, the commonest position for it to lie.

2. The scapular “Y” view



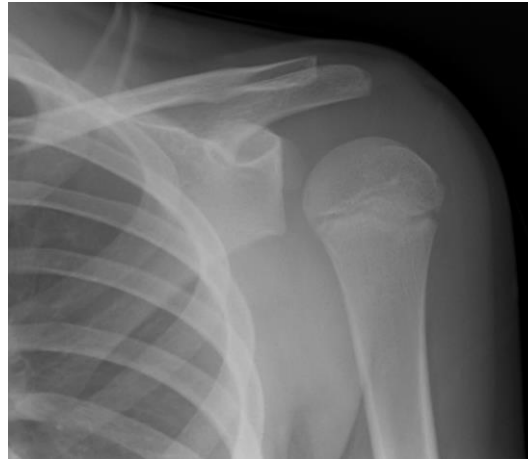
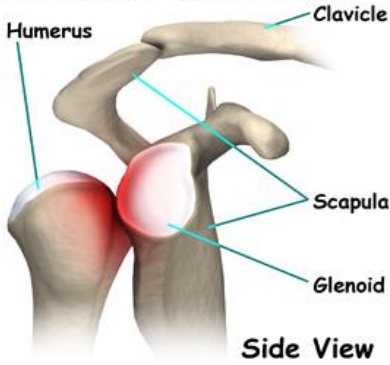
The humeral head normally lies within the middle of the ‘Y shape’ made up from the acromion and the coracoid.

This view shows the humeral head lying anterior and inferior to the Y.

Posterior dislocations

- Usually result from forceful contractions of internal rotators that occur during seizures or electrical shocks.
- Humeral head is forced posteriorly behind the glenoid and internally rotated.
- Commonly associated with fractures
- Look for the “light bulb sign” on the AP view – humeral head internally rotated giving a rounded appearance.
- Often missed – needs careful consideration if suspicious

Posterior Dislocation



Management

- Analgesia
 - Entonox,
 - Intranasal fentanyl 1.5 micrograms/kg, max 75 micrograms
 - I.V morphine
- Discuss with CED Consultant / ENP – if out of hours, refer to Orthopaedic Registrar (bleep 8629).
- Reduction under sedation / GA.
- Post-reduction follow up:
 - Broad arm sling
 - Check X-ray. Document neurovascular function
 - Virtual fracture clinic – will be contacted by Physio (refer via PANDA)

Reduction techniques – anterior dislocations

In the first instance

- Provide adequate analgesia to allow patient to move comfortably
- Lay patient prone
- Allow affected arm to hang off side of bed
- Attach or get the patient to hold a weight on affected side
 - Use 1-2 bags of IV fluids tied together in a Stockinette bag



If reduction is not achieved with this method, await senior review. Keep patient prone if comfortable.

Other reduction methods (senior or experienced user only):

1. Scapular manipulation

- Patient placed prone on bed with affected arm hanging down off the side
- Assistant applies in-line traction to humerus by downward pressure on flexed elbow
- Push inferior tip of scapula medially using thumbs, whilst stabilising the superior part of the scapula with fingers.

Should reduce after 1-5 minutes. High reported success rate.



2. External rotation

- Patient lies supine with elbow flexed to 90°
- Keep elbow adducted by holding it with one hand, and hold the patient's wrist with the other hand.
- SLOWLY guide the hand as the patient externally rotates the shoulder (ask the patient to let their hand fall to the side)
- Stop and let muscles relax whenever pain and spasm occurs

Should reduce after 5-10 minutes. Reduction usually occurs when arm is rotated 70-110 degrees.

