

## PedsCases Podcast Scripts

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### **APPROACH TO SHOULDER PAIN**

Developed by Cassie Walmsley and Dr. Erika Persson for PedsCases.com.  
December 8, 2021

### **APPENDIX 1 – SPECIAL TESTS**

#### **Tests for Acromioclavicular (AC) Joint Injury**

##### **1. Cross-Body Adduction Test (Scarf Test)**

Purpose: Assess for AC joint injury.

Technique: Bring the patient's arm into 90° of forward flexion, and 90° of flexion at the elbow. The examiner should then adduct the flexed arm horizontally across the patient's body, gently pushing their elbow towards the contralateral shoulder.

Interpretation: A positive result is pain is reproduced over the AC joint.

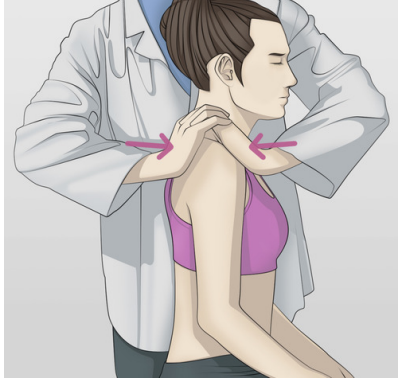


##### **2. AC Shear Test**

Purpose: Assess for AC joint injury

Technique: Begin with the patient sitting. The examiner should cup their hands over the shoulder with the heel of one hand on the clavicle, and the heel of the other on the spine of the scapula, and then squeeze their hands together.

Interpretation: A positive result is abnormal movement or pain at the AC joint.



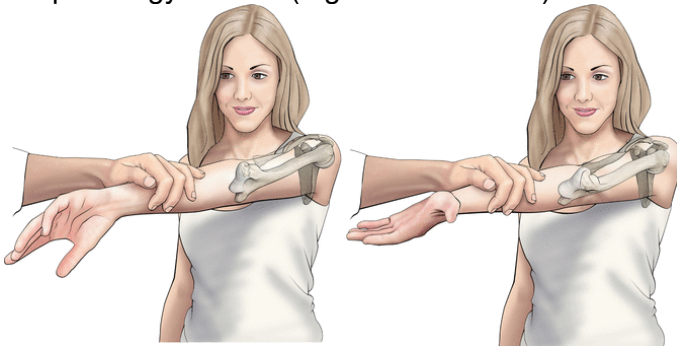
### 3. Active Compression Test (O'Brien's Test)

Purpose: Assess for AC joint injury

Technique:

- Bring the arm into 90° of forward flexion and 15° of horizontal adduction, with the shoulder in full internal rotation and the elbow extended and fully pronated (thumb down). The examiner should then apply a downward force on the patient's forearm while the patient resists.
- The examiner should then repeat this with the patient's arm externally rotated and the elbow fully supinated (palm up).

Interpretation: A positive result is pain reproduced in the AC joint by maneuver a), which is reduced or significantly decreased by maneuver b). This would be suggestive of AC joint pathology. If clicking in the joint is produced, this would be more indicative of labral pathology instead (e.g. a SLAP lesion).



Keep in mind that a distal clavicle fracture often mimics an AC joint injury, and will therefore often yield positive results on these special tests as well

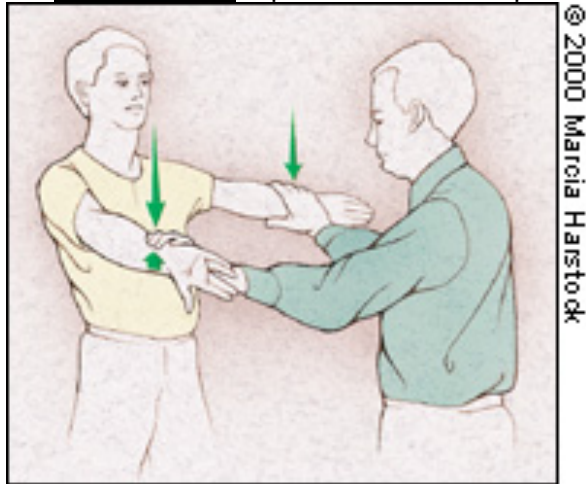
## Tests for Shoulder Impingement Syndrome

### 1. Empty Can Test

Purpose: Assess for shoulder impingement syndrome (or for supraspinatous muscle or tendon pathology)

Technique: Place the arms so that they are elevated 90° in the plane of the scapula, with the elbow fully extended and full internal rotation and pronation of the forearm (thumb down). The examiner should then stabilize the shoulder and apply a downward force to the forearm while the patient resists.

**Interpretation:** A positive result is reproduction of the patient's pain.

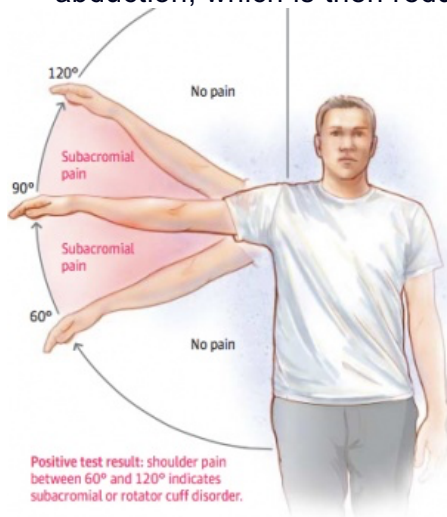


## 2. Painful Arc Test

**Purpose:** Assess for shoulder impingement syndrome

**Technique:** Starting with their arms in neutral position at their sides, the patient should be asked to slowly abduct their arms \*in the scapular plane as high as they can. They should be instructed to tell the examiner if and when they experience shoulder pain (while continuing to abduct their arms), and if and when the pain is reduced. Once fully abducted, they should slowly adduct their arms back down to their sides.

**Interpretation:** A positive result is pain experienced between 60 and 120 degrees of abduction, which is then reduced once past 120 degrees of abduction.

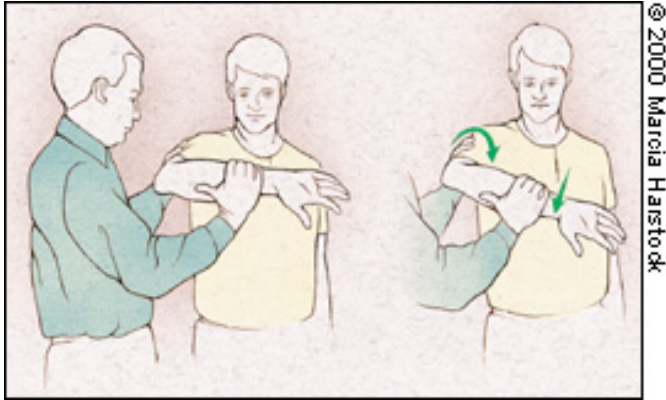


## 3. Hawkins-Kennedy test

**Purpose:** Assess for shoulder impingement syndrome

**Technique:** Position the patient's arm with 90° forward flexion of the shoulder, and 90° elbow flexion. The examiner should then internally rotate the shoulder.

**Interpretation:** A positive result is pain with internal rotation.

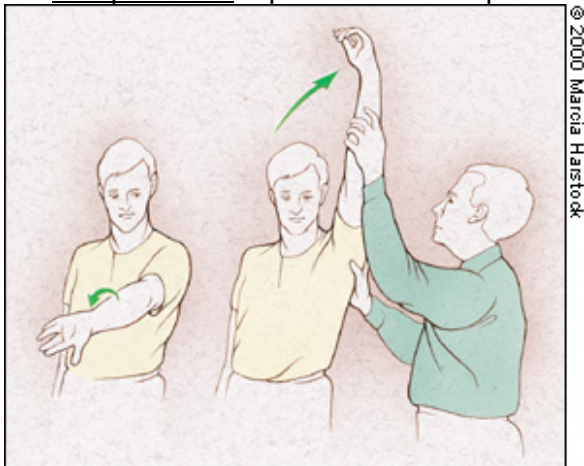


#### 4. Neer test

Purpose: Assess for shoulder impingement syndrome

Technique: Start with the patient's arm by their side. The examiner should then internally rotate the arm, stabilize the patient's scapula with one hand, and passively forward flex the patient's arm with the other hand, keeping the shoulder internally rotated and the elbow extended.

Interpretation: A positive result is pain during forward flexion.



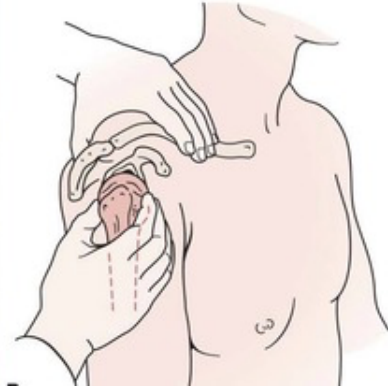
### **Tests for Glenohumeral Joint Instability**

#### 1. Load and Shift Test

Purpose: Assess for glenohumeral joint instability

Technique: Begin with the patient seated and their arm resting on their lap. The examiner should stabilize the scapula with one hand, while using the other hand to grasp the humeral head with the fingers in the anterior glenohumeral joint line. The examiner should then apply an anteromedial and then a posterolateral force to the humeral head.

Interpretation: A positive test is excess movement of the humeral head, indicating laxity of the capsule and suggesting glenohumeral instability.

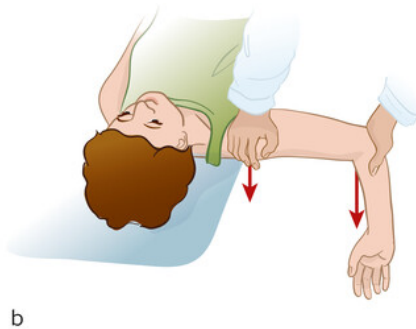
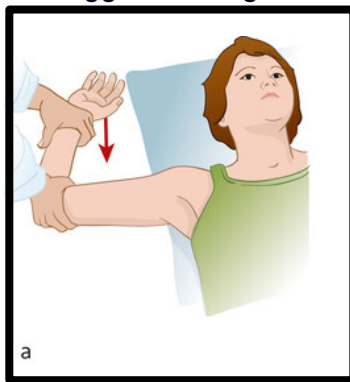


## 2. Apprehension test

**Purpose:** Assess for glenohumeral joint instability

**Technique:** Begin with the patient in supine position, with their elbow flexed to 90° and their shoulder abducted 90°. The examiner should then slowly apply an external rotation force to the arm while observing the patient.

**Interpretation:** A positive test is patient *apprehension* during this maneuver, which is suggestive of glenohumeral instability.

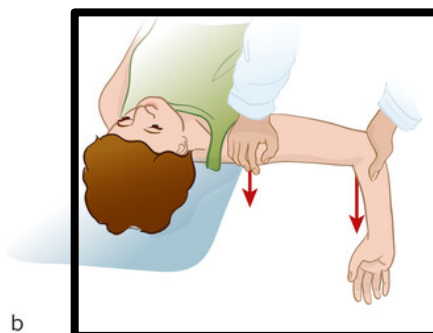
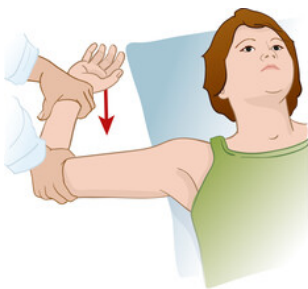


## 3. Relocation Test

**Purpose:** Assess for glenohumeral joint instability

**Technique:** Begin with the Apprehension Test (see above). If the patient reports apprehension during this test (a positive result), the examiner should then apply a posterior force to the shoulder (pushing the glenohumeral joint back into the bed).

**Interpretation:** A positive result is *reduced* or *eliminated* apprehension with the posteriorly directed force, which is suggestive of glenohumeral instability.



#### 4. **Sulcus Sign Test**

Purpose: Assess for glenohumeral instability.

Technique: Begin with the patient standing, with their arm resting in neutral position at their side. The examiner should then grasp the patient's elbow and apply a downward force.

Interpretation: A positive result is the appearance of a sulcus, which is defined as a depression greater than one fingerbreadth between the acromion and the humeral head. This is suggestive of glenohumeral instability.



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