

Screening and Referral Tools (SRTs) TRAUMATIC and ACUTE SHOULDER PAIN

Soldier Reports With Traumatic
or Acute Shoulder Pain

RED FLAGS in Shoulder Trauma:

Fracture / Dislocation or Major Soft Tissue Injury

- Deformity
- Unwillingness to move due to pain

Neuro-Vascular Injury

- Altered circulation or temperature
- Altered motor or sensory exam

Infection

- Local redness, swelling, increased temperature, exudate with or without constitutional symptoms

Uncertain Exam

Cervical Spine Pain - work up via neck pain SRT

Imaging - if you have high index of suspicion for fracture - order films regardless of Red Flags

Yes

X-Rays - A/P, Lat, Axillary

**Call Ortho TODAY
discuss management**

★ RICE

- Relative rest** as designated on profile
- Ice compress** 2-3 times daily for 20 minutes
- Compression** by use of elastic bandage
- Elevation** of affected joint above heart during periods of rest

Shoulder Exam (+) Special Tests (see below)

No

No

- Profile (B) x 10 - 14 days
- Tylenol/NSAIDs for analgesia
- **Rice★**
- Re-evaluate at end of profile

Yes

- Routine X-Rays - AP, Lat, Axillary (MRI not indicated acutely)
- Profile (A) x 7 - 10 days
- Sling for moderate symptoms (remove hourly, do not sleep in sling)
- Tylenol/NSAIDs for analgesia
- **Rice★**
- Referral: PT, Sports Med, or Ortho as indicated, in 72 hrs

Yes

- Consider X-Rays - AP, Lat, Axillary
- Profile (B) x 2 - 3 weeks
- Tylenol/NSAIDs for analgesia
- **Rice★**
- Referral: PT, Sports Med, or Ortho as indicated, in 7 days

Mostly Resolved

- Progressive RTD Profile PRN
- Tylenol/NSAIDs PRN
- RTD end of profile anticipated

SPECIAL TESTS

Stability Tests

- (+) Sulcus Sign
- (+) Apprehension Test
- (+) Jobe Relocation Test

Labral Tears

- (+) Crank Test
- (+) O'Brien's Test

Rotator Cuff & LH Biceps Exam

- (+) Drop Arm Test
- (+) Empty Can Test
- (+) Lift Off Test
- (+) Painful weakness with Ext Rot at side
- (+) Speeds Test (LH Biceps)

Impingement Tests

- (+) Hawkins Impingement
- (+) Neers Impingement

AC Joint Tests

- (+) Cross Body Abduction
- (+) Palpation

PROFILES

(A) Use sling at all times. No lifting, throwing, push ups, sit ups, ruck sack, body armor. No running, jumping or marching.

(B) No push ups, side straddle hops, overhead lifting, no lifting > 15 lbs. Sit up with arms crossed on chest. No ruck sack or IBA wear. Run / Walk own pace up to 2 miles 3x per week.

Special Tests for the Shoulder

STABILITY TESTS:

- The **Sulcus Sign** is an orthopedic evaluation test for glenohumeral instability of the shoulder. With the arm straight and relaxed to the side of the patient, the elbow is grasped and traction is applied in an inferior direction. With excessive inferior translation, a depression occurs just below the acromion. The appearance of this sulcus is a positive sign.
- The **Apprehension Test** is used to assess for anterior shoulder instability. The patient flexes elbow to 90 deg and abducts shoulder to 90 deg. The examiner holds the patient's wrist and externally rotates the shoulder while applying forward pressure on the posterior shoulder. If the patient reports pain and/or a sense the shoulder will dislocate, it is a positive test. If the Apprehension Test is positive, the examiner should note the degree of external rotation that apprehension occurred and follow-up with a **Jobe Relocation Test**. With the Jobe Relocation Test, the examiner will return to the Apprehension Test start position. The examiner then applies posterior pressure over the anterior shoulder. While holding the posteriorly directed pressure, the examiner will repeat the Apprehension Test. If pain and apprehension do not occur at the point of external rotation noted to cause symptoms, it's a positive test with likely anterior instability. If pain is not relieved with the Jobe Relocation Test, the patient may have acromioclavicular joint impingement.

LABRAL TEARS:

- The **Crank Test** is used to assess for a labral tear. With the shoulder fully forward flexed, the examiner internally and externally rotates the shoulder while applying an axial load along the humerus. Pain indicates a positive test
- The **O'Briens Test** tests for a labral tear (SLAP lesion). The patient forward flexes the shoulder to 90 deg and adducts the shoulder approximately 30 deg. With the hand pronated the patient resists a downward pressure applied by the examiner. The test is repeated with the hand supinated. A deep anterior pain indicates a possible SLAP lesion.

ROTATOR CUFF AND LONG HEAD BICEPS EXAM:

- The **Drop Arm Test** is used if a rotator cuff tear is suspected. Examiner passively abducts shoulder to 160 degrees Patient attempts to slowly adduct arm to resting position at side. If the arm drops to side quickly and not smoothly or a gentle tap over abducted arm causes the arm to give way, the patient may have a Rotator Cuff Tear.
- The **Empty Can Test** tests for supraspinatus pain and/or weakness and is used to determine impingement or a rotator cuff tear. The patient abducts the shoulder to 90 deg and then brings the arms forward approx. 30 deg. The hands are pronated as if emptying a can. The patient tries to resist the examiner's downward pressure. If there is pain, it's a positive test. Could indicate impingement/tendinopathy and/or a rotator cuff tear.
- The **Lift Off Test** tests the strength and integrity of the subscapularis. The patient internally rotates the shoulder positioning the back of his hand against the small of his back. The patient attempts to force his hand away from his back against the examiner's resistance. Weakness suggests a subscapularis muscle tear or impingement.
- **Painful Weakness with External Rotation at Side** – Examiner applies resistance as the patient attempts to externally rotate the shoulder. Could indicate rotator cuff tear or tendinopathy of the long head of the biceps.
- The **Speeds Test** is used to assess the long head of the biceps. The patient flexes his shoulders to approximately 50 deg with hands supinated and elbow flexed 15 deg. The patient resists the downward force of the examiner. If there is pain, it's a positive test and indicates bicipital tendinopathy of the long head of the biceps.

IMPINGEMENT TESTS:

- The **Hawkins Impingement Test** is used to assess for subacromial impingement. The patient flexes the shoulder and elbow to 90 deg. The examiner stabilizes the elbow with one hand and grasps the wrist with the other. The examiner then passively externally rotates the shoulder followed by passive internal rotation of the shoulder. Pain with either maneuver suggests shoulder impingement. Pain with external rotation – subscapularis. Pain with internal rotation – supraspinatus, teres minor, and infraspinatus.
- The **Neers Impingement Test** is used to assess for subacromial impingement. The patient starts with the arm at his side. The examiner grasps the patient's wrist and internally rotates the shoulder approximately 90 degrees and then flexes the shoulder to 180 deg. Pain is suggestive of shoulder impingement of the posterior rotator cuff.

AC JOINT TESTS:

- The **Cross Body Abduction Test** is used to assess the acromioclavicular (AC) joint. Have the patient reach across his body and touch the opposite shoulder. Pain indicates a positive test for AC joint disease or sternoclavicular joint disease.
- **Palpation** – self explanatory. Painful palpation is a positive sign.

References:

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