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

Shoulder Pain References p.20

**RED FLAGS**
- Fracture/Dislocation or Major Soft Tissue Injury
  - Deformity
  - Unwillingness to move due to pain
- Neurovascular Injury
  - Altered circulation or temperature
  - Altered motor or sensory exam
- Infection or Septic Joint
  - Acute pain with fever
  - History of recent infection including elsewhere in the body
  - Signs or symptoms of septic arthritis: acute joint swelling, pain, erythema, warmth, joint immobility (see p.15 for risk factors)
  - Exudate with/without constitutional sx
- Uncertain Exam
  - Pain out of proportion to injury/ physical exam
  - Unable to mechanically reproduce symptoms
  - Inconclusive findings
  - Symptoms do not follow typical nerve root / superficial nerve / referred pain patterns
- Cervical Spine Pain
  - Work up via neck pain SRT
- Imaging
  - If you have a high index of suspicion for fracture, order films regardless of Red Flags

**SHOULDER EXAM**
(+ Special Tests (see below)

- Profile (B) x 1-2 weeks
- Sling PRN
- Analgesic Meds PRN (see p.16)
- **★ RICE**
- Re-evaluate at end of profile

**SYMPTOMS PERSIST?**

- Yes
  - Profile (A) x 7-10 days
  - MRI not indicated acutely
  - Profile (A) x 7-10 days
  - Referral: PT, Sports Medicine or Ortho, as indicated, in 72 hours
- No
  - Symptons Mostly Resolved
  - Yes
    - Consider X-Rays AP, Lat, Axillary
    - Profile (B) x 2-3 weeks
    - Analgesic Meds PRN (see p.16)
    - **★ RICE**
    - Referral: PT, Sports Medicine, or Ortho as indicated in 7 days
  - No
    - Profile (B) x 2-3 weeks
    - Analgesic Meds PRN (see p.16)
    - **★ RICE**
    - Referral: PT, Sports Medicine, or Ortho as indicated in 7 days

**SPECIAL TESTS EXAM**

- Anterior Instability Tests
  - (+) Apprehension Test and
  - (+) Relocation Test
- SLAP Tears
  - (+) Passive Distraction Test and
  - (+) Active Compression Test
- Rotator Cuff Tests
  - (+) External Rotation Lag Sign
  - (+) Belly Press Test
  - (+) Lift Off Test
  - (+) Drop Sign
  - (+) Hawkins
  - (+) Neers
- AC Joint Tests
  - (+) Cross Body Adduction and
  - (+) AC Resisted Extension and
  - (+) Active Compression Tests
  - (+) Palpation

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

**PROFILE**

Sample severe (A) and moderate (B) shoulder injury profiles on eProfile.

(A) Severe shoulder injury examples:
- Dislocation or instability
- Acute labral tear
- Rotator cuff tear
- Acute AC Joint separation or sprain

(B) Moderate shoulder injury examples:
- Pain throughout the range of motion or pain that limits motion
- Decreased shoulder/arm strength

Minimal shoulder injury example:
- Pain at end range of movement without decreased shoulder motion or shoulder/arm strength

* If sling is prescribed, direct patient to remove hourly for gentle motion/ no sleeping with sling

Patient Reports With Traumatic or Acute Shoulder Pain

X-Ray – A/P, Lateral, Axillary
Call Ortho TODAY to discuss management
## Screening and Referral Tools (SRTs)
### TRAUMATIC and ACUTE SHOULDER PAIN TESTS

<table>
<thead>
<tr>
<th>TEST</th>
<th>PROCEDURE</th>
<th>(+) SIGN</th>
<th>SN/SP</th>
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</table>
| **Apprehension Test** | The patient flexes elbow to 90° and abducts shoulder to 90°. The examiner holds the patient’s wrist and externally rotates the shoulder. 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. | Pain | SN = .40-.50  
SP = .56-.87<sup>1-3</sup>  
Apprehension | SN = .62-.72  
SP = .42-.96<sup>1-3</sup> |
| **Jobe Relocation Test** | The patient flexes elbow to 90° and abducts shoulder to 90°. 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 subacromial joint impingement. | Reduced pain | SN = .30-.54  
SP = .44-.90<sup>1,3-5</sup>  
Reduced Apprehension | SN = .44-.81  
SP = .54-1.00<sup>1-3,5</sup> |
| **Passive Distraction Test** | The patient lies supine with the affected extremity abducted to 150° with the elbow extended and forearm supinated. The examiner stabilizes the upper arm to prevent humeral rotation. The examiner then pronates the forearm. | Pain reported deep inside the glenohumeral joint either anterior or posterior | SN = .44-.81  
SP = .54-1.00<sup>1-3,5</sup> | |
| **Active Compression Test**  
(O’Brien’s) | The patient forward flexes the shoulder to 90° and horizontally adducts the shoulder approximately 10°. With the forearm pronated the patient resists a downward pressure applied by the examiner. The test is repeated with the forearm supinated. | A deep anterior pain with the forearm pronated that is reduced with the forearm supinated | SN = .47-.94  
SP = .11-.55<sup>1,2,7-10</sup> | |
| **External Rotation Lag Sign** | Tests for a supraspinatus/infraspinatus tear. The patient is seated with the examiner to the rear. The examiner grasps the patient’s elbow with one hand and wrist with the other. The elbow is flexed to 90° and the shoulder elevated to 20° in the scapular plane. The examiner externally rotates the shoulder to near end range and asks the patient to maintain this position as the wrist is released. | Patient cannot maintain this position (shoulder rotates internally) | SN = .46  
SP = .94<sup>1,11</sup> | |
| **Belly Press Test** | Tests for a subscapularis tear. The patient sits or stands with the elbow flexed to 90° and internally rotates the shoulder, pressing the palm of the hand into the belly. Examiner places fingers of one hand between palm of patient’s hand and belly. Patient resists examiner’s attempt to pull hand away from belly (test of internal rotation strength). | Substitution for weak internal rotators by 1) flexing wrist or 2) pulling elbow behind body into extension to maintain palm of hand against belly. | SN = .40  
SP = .98<sup>12</sup> | |
| **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. The Belly Press Test is a good substitute for the Lift Off Test if patient cannot place hand behind back. | Weakness or substitution by extending the elbow or shoulder suggests a subscapularis muscle tear or impingement | SN = .81  
SP = 1.00<sup>1,12</sup> | |
| **Drop Sign** | Tests for an infraspinatus tear. The patient is seated with the examiner to the rear. The examiner grasps the patient’s elbow with one hand and wrist with the other. The elbow is flexed to 90° and the shoulder elevated to 90° in the scapular plane. The examiner externally rotates the shoulder to near end range and asks the patient to maintain this position as the wrist is released. | Patient cannot maintain this position. | SN = .73  
SP = .77<sup>1,11</sup> | |
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<tr>
<td>Hawkins Impingement Test</td>
<td>The patient flexes the shoulder and elbow to 90°. The examiner stabilizes the elbow with one hand and grasps the wrist with the other. The examiner then passively internally rotates the shoulder.</td>
<td>Pain</td>
<td>SN = .55-.80</td>
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<td>SP = .38-.431,13,14</td>
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<tr>
<td>Neer Impingement Test</td>
<td>The patient starts with the arm at his side. The examiner stabilizes the patient's shoulder blade /scapula with one hand. With the other hand examiner grasps the patient's wrist, internally rotates the shoulder, then flexes the shoulder as high as possible.</td>
<td>Pain</td>
<td>SN = .64-.80</td>
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<td>SP = .30-.531,13,15</td>
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<td>Cross Body Adduction Test</td>
<td>With the patient’s shoulder flexed to 90° and elbow extended, the examiner stabilizes the patient’s upper back posteriorly, then passively and fully horizontally adducts the tested shoulder.</td>
<td>Pain indicates a positive test for AC joint or sternoclavicular joint pathology</td>
<td>SN = .77</td>
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<td>SP = .7916</td>
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<td>AC Resisted Extension Test</td>
<td>The patient is seated with the shoulder in 90° of flexion and internal rotation and the elbow in 90° of flexion. The examiner is behind the patient and applies resistance as the patient horizontally abducts the arm.</td>
<td>Pain at the AC joint</td>
<td>SN = .72</td>
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<td>SP = .8516</td>
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<td>Active Compression Test</td>
<td>The patient forward flexes the shoulder to 90° and adducts the shoulder approximately 10°. With the forearm pronated the patient resists a downward pressure applied by the examiner. The test is repeated with the forearm supinated.</td>
<td>Patient will likely report AC joint pain in both test positions (forearm pronated and supinated)</td>
<td>SN = .16</td>
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<td>(O’Brien’s Test)</td>
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<td>SP = .9017</td>
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<tr>
<td>Palpation</td>
<td>Self explanatory.</td>
<td>Painful palpation</td>
<td>SN = .96</td>
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<td>SP = .1017</td>
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<td>Biceps Tendon Hook Test</td>
<td>Helps to detect distal biceps tendon rupture. With the patient’s shoulder actively abducted to 90° and the elbow actively flexed to 90°, the patient actively supinates the forearm. The examiner then uses the index finger to “hook” under the distal biceps tendon from the lateral side.</td>
<td>There is no cord-like structure under which the examiner may hook a finger.</td>
<td>SN = 1.00</td>
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<td>SP = 1.0018</td>
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