

**SHOULDER EXAM**

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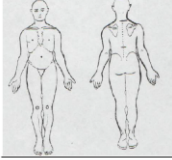
Orthopaedic Manual Physical Therapy Series  
Charlottesville 2017-2018

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**VOMPTI\_CLINICAL REASONING FORM**

Student/Resident: \_\_\_\_\_

DATE: \_\_\_\_\_ PATIENT: \_\_\_\_\_



**Body Chart-Initial Hypothesis:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Outcome Tool/Measure: \_\_\_\_\_ MCID: \_\_\_\_\_


Score: \_\_\_\_\_

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**Subjective History: "Interrogate with Empathy"**

- Age
- Hand Dominance
- Symptom onset
- Pain description
- Location
- Referral pattern
- Mechanism (traumatic/insidious)
- History of overuse
- What specifically aggravates sx/s - sport specific
- Sense of Instability
- Mechanical signs/sxs - associated with pain?
- Neurovascular symptoms
- Occupation/Activity level/sports
- Previous history - similar
- PMHx : ? Predispose pathology



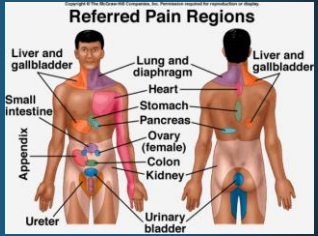
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**Differential Diagnosis**

- Systemic disease affecting the other organs can refer pain to the shoulder
- Cardiac
- Lung / pleura
- Diaphragm (Phrenic n)
- Abdominal
- Spine: Cervical and/or Thoracic
- Breast

**Referred Pain Regions**



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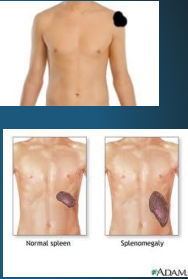
### MECHANISM OF VISCERAL REFERRED PAIN

- ✘ Neurology of visceral pain not understood at this time
- ✘ Afferent fibres known to run with the blood vessels along similar pathways to the SNS
- ✘ Viscerosensory fibres ascend to the thalamus and the project to several areas of the brain which encode for site
- ✘ Differentiation done poorly by brain due to
  - + Low receptor density
  - + Large overlap in brain
  - + Multisegmental innervation
  - + Embryological development
  - + Direct Pressure (diaphragm)

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### Differential Diagnosis

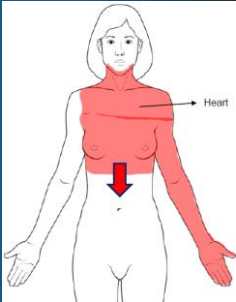
- **Kehr's sign**
  - Pain referred to the lateral acromium(L) shoulder from **Spleen** injury
  - Typically post trauma
  - Irritation of the left diaphragm and Phrenic nerve by intra-peritoneal blood, or air when the patient is in the supine position
  - Hypotension is associated sign
  - Pain referral intra-abdominal bleeding such as ruptured ectopic pregnancy



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### Differential Diagnosis

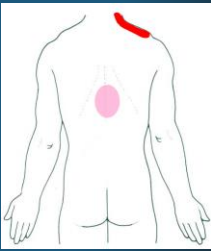
- **Heart**
  - Pain referred to (L) shoulder
  - (R) UE referral - Less typical
  - Less consistent distribution females
- Associated signs:
  - HTN
  - Heart disease
  - DM
  - Hyperlipidemia
  - Smoking
  - Family Hx heart disease



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### Differential Diagnosis

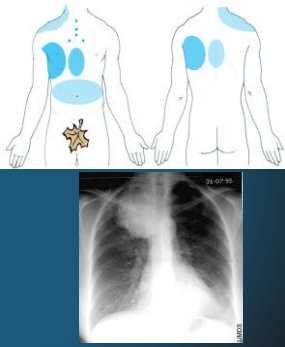
- **Cholecystitis - Gallstones**
  - Pain referred to R scapula
  - Associated with indigestion
  - Risk factors:
    - "4 F's"
    - Female
    - Fertile
    - > 40 yo
    - Overweight



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## Differential Diagnosis


- **Cancer**
  - Primarily - Lung
  - Malignancies: Hx of any CA (7 years)
  - Constitutional Signs: night pain, fever, weight loss, ↑ temp, fatigue
  - Consider other causes of the pt's shoulder pain, if Rx is not effective or minimally effective!!!
- **Pancoast Tumor**
  - Medial scapular sx's - Ulnar n distribution
  - Sympathetic chain involvement
  - Horner syndrome (unilateral)



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## Horner's Syndrome

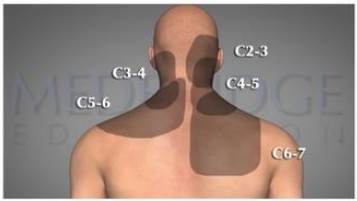
- **Ptosis** - Drooping of your upper eyelid and slight elevation of the lower lid
- **Miosis** - Decreased pupil size in your affected eye
- **Anhidrosis** - Decreased or absent sweating on the affected side of your face



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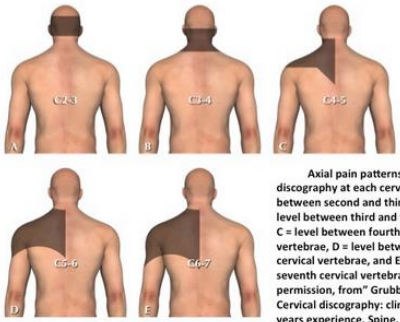
## Cervical Zygapophyseal (Facet) Referral

Composite map of axial pain patterns produced by injections into the facet joints at the second through seventh cervical levels. (Reprinted, with permission, from Dwyer A, April C, Bogduk N. Cervical zygapophyseal joint pain patterns I: a study in normal volunteers. Spine. 1990;15:453-7)



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## Cervical Disc Referral



Axial pain patterns provoked during discography at each cervical level. A = level between second and third cervical vertebrae, B = level between third and fourth cervical vertebrae, C = level between fourth and fifth cervical vertebrae, D = level between fifth and sixth cervical vertebrae, and E = level between sixth and seventh cervical vertebrae. (Reprinted, with permission, from Grubb SA, Kelly CK, Bogduk N. Cervical discography: clinical implications from 12 years experience. Spine. 200; 25:1382-9.)

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## Observation

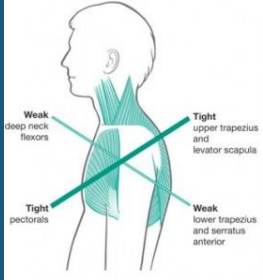
- **Posture**
  - Anterior**
    - Deformity-Biceps, AC
    - Atrophy - UT, Deltoid
  - Posterior**
    - Scapula resting position
    - Atrophy - Infra/Supraspinatus
  - Lateral**
    - Spine
      - Scapula position on T spine
      - Lumbopelvic position
    - Scapular position - Tilt



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## Upper Quarter Crossed Syndrome

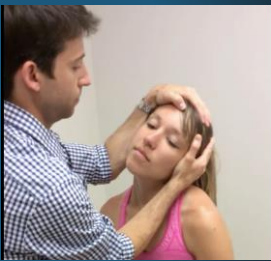
- **Facilitated/Short**
  - Upper Trap/Levator Scapulae
  - Pecs
- **Inhibited/Weak**
  - Scapular Retractors
    - Mid/Low Trap
    - Rhomboids
    - Serratus Ant
  - Deep Neck Flexors



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## Cervical Clearing

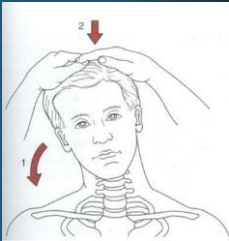
- **Full AROM**
  - Overpressure
- Spurling's
- (-) Neuro Exam



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## Spurling's Test

- **Foraminal compression (Spurling's)**
  - Side bend (may add extension)
  - Compression through the head
- Designed to test for cervical radiculopathy
- Specific test: 92%
  - (+) LR = 4.87
  - Not as sensitive (11-39%)



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## Thoracic Spine Clearing

- ? Sxs with inhalation/exhalation



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## AROM

- Amount
- Quality
- Willingness to move
- Overpressure
- Uninvolved side 1st
- Flexion, Scaption, Abduction
  - Painful arc 70-110 (subacromial IMP); > 110 AC
- ER @ 0, 45, 90
- Horizontal ADD
- Hand behind Back
- Hand behind Head



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## Demo/Lab

- Postural assess – Stand
- Cervical/Thoracic Clearing
- AROM + Overpressure
  - Flexion, Scaption, Abduction
  - ER @ 0, 45, 90
  - Horizontal ADD
  - Hand behind Back
  - Hand behind Head



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## Scapular Observation

- Resting position
- Hands on Hips
- Active Elevation
  - Flexion, Scaption, ABD
- 3-5 reps
- Add load (3-5# weights)
- Observe for Abnormal movement
- Asymmetry
- Eccentric phase

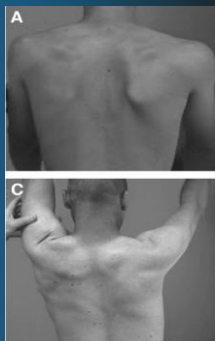


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### Scapular Resting Position/Scapular Dyskinesia

- **Type 1:** Abnormal static scapular position and/or dynamic scapular motion characterized by Medial border prominence
- **Type 2:** Inferior angle prominence and/or early scapular elevation or shrugging on arm elevation
- **Type 3:** Excessive Upward Rotation – Elevation
  - Rapid downward rotation during arm lowering



### Evaluation of Clinical Assessment Methods for Scapular Dyskinesia

Arthroscopy 2009 Uhl T

#### CONCLUSIONS

The **yes/no method** allows multiple-plane asymmetries to be considered in clinical assessment, thus rendering it a **good screening tool** for the presence of scapular dyskinesia. Kinematic analysis shows that **asymmetries are common** in symptomatic and asymptomatic populations; however, when scapular dyskinesia is found in the presence of shoulder symptoms, it should be considered as a potential **contributing factor** to shoulder dysfunction. Assessment for scapular dyskinesia in symptomatic patients should include forward **flexion** motions because the prevalence of multiple-plane asymmetries was higher.

### Scapulothoracic Assessment – Physiologic : Protraction/Retraction

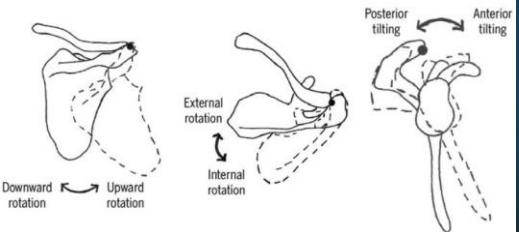


### Scapulothoracic Assessment – Physiologic : Elevation/Depression



### Scapulothoracic Accessory Motion

- Distraction
- Upward/Downward Rotation
- Internal/External Rotation
- Anterior/Posterior Tilt



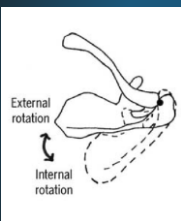
### • Scapulothoracic Accessory Motion

- Distraction



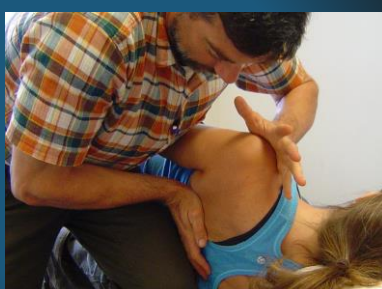
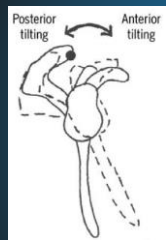
### • Scapulothoracic Accessory Motion

- Internal/External Rotation




### • Scapulothoracic Accessory Motion

- Anterior/Posterior Tilt



- **Scapulothoracic Accessory Motion**  
– Upward/Downward Rotation



Downward rotation      Upward rotation

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- **Supine**      **Passive ROM**
  - Flexion
  - Scaption
  - Abduction
  - IR @ 45, 90 degrees
  - ER @ 0, 45, 90 degrees
  - Horizontal ADDuction

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- **Passive Accessory Mobility Testing**
  - **Movements available**  
in joints which are performed passively by the examiner but which the patient cannot perform actively
  - **Assess:**
    - Uninvolved side 1st
    - Amount of movement
    - Tissue response
    - Neutral zone
    - End feel
    - Pain provocation
    - Begin grade II (gentle) progress to IV (depending on irritability)
    - Open pack position first, progress closed pack/end ROM
    - Cardinal plane translation → specific direction

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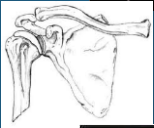

- **Passive Accessory Assessment**
  - **Glenohumeral**
    - Anterior Glide
    - Posterior Glide
    - Inferior Glide
  - **Acromioclavicular**
    - Caudal Glide
    - Anterior Glide
    - Posterior Glide
  - **Sternoclavicular**
    - Inferior Glide
    - Posterior Glide
  - **Scapulothoracic**
    - Anterior/Posterior Tilt
    - Upward/Downward Rotation
    - Internal/External Rotation

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## Glenohumeral Joint

- Built for **MOBILITY**
- **Humeral Head**
  - 3-4x larger than glenoid
  - Oriented medial, posterior superiorly
  - 130-150 degrees to humerus
  - Retroverted 20-30 degrees
- **Glenoid fossa**
  - Pear shaped
  - Inclined lateral, posterior, superior
  - Inferior larger than superior






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## Glenohumeral - Anterior Glide



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## Glenohumeral - Posterior Glide



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## Glenohumeral - Inferior Glide





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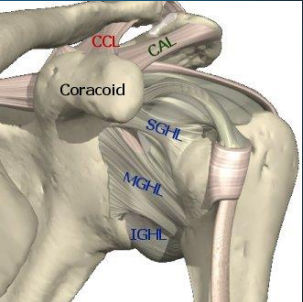



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## Lab


- **Glenohumeral**
  - Anterior Glide
  - Posterior Glide
  - Inferior Glide





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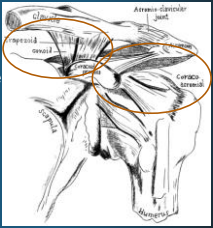



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- Synovial gliding joint
- Articular disc/meniscus
- Lax Capsule/Strong Ligaments
  - AC ligts: resist 90% a-p translation
  - **CoracoAcromial Lig** :
    - Substantial increase in superior/ anterosuperior translation of the humeral head with resection of the coracoacromial ligament
  - **CoracoClavicular Ligts**:
    - Conoid: (medial) - Vertically oriented
    - Trapezoid: (lateral) – Horiz oriented
    - Post Rotation with humeral elevation, assists with glenoid elevation


## Acromioclavicular Artuculation





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## AC – Inferior Glide Assessment

Pt : Supine, UE neutral

PT: Pads of both thumbs on Superior surface of distal Clavicle


Assess : Inferior glide clavicle on acromion



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## AC – Posterior Glide Assessment

- Pt: Supine, UE neutral
- PT: Thumbs on Anterior aspect distal Clavicle
- Assess: Posterior mobility of distal Clavicle on Acromion



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## AC – Posterior Glide Assessment

- Pt: Seated, UE neutral
- PT: Standing perpendicular to shoulder
  - Anterior hand contact distal Clavicle
  - Posterior hand stabilize posterior Acromion
- Assess: Posterior glide Clavicle on Acromion



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## AC – Anterior Glide Assessment

- Pt: Prone, UE off table
- PT: Standing near axilla; Thumbs posterior aspect distal clavicle
- Assess: Posterior to Anterior mobilization Clavicle on Acromion



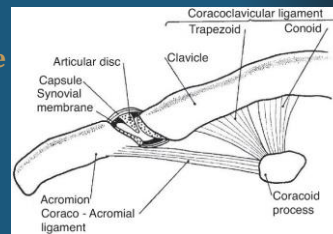
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## • Acromioclavicular

- Caudal Glide
- Anterior Glide
  - Supine
  - Seated
- Posterior Glide

## Lab

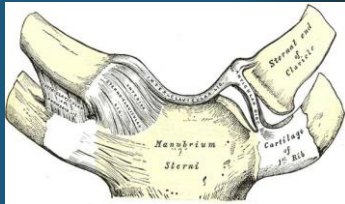


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## Sternoclavicular Articulation

- UQ to spine
- Saddle shaped synovial
- Inherently unstable
- Clavicle
  - Concave a-p
  - Convex m-l
- Ligts:
  - Thin capsule
  - Interclavicular
  - Ant/Post\* Sternoclavicular
  - Disc - separates joint, attached to 1<sup>st</sup> rib cartilage



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## SC – Inferior Glide Assessment

- Pt: Supine UE neutral (progress to elevation end ROM)
- PT: Thumbs over medial clavicle
- Assess: Inferior glide



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## SC – Posterior Glide Assessment

- Pt: Supine UE neutral (progress to elevation end ROM)
- PT: Thumbs over medial clavicle
- Assess: Posterior glide



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## SC – Inferior Glide end ROM elevation

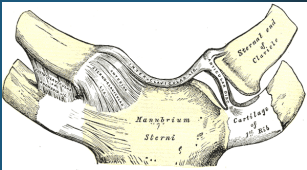


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**Lab**

- Sternoclavicular
  - Inferior Glide (neutral/end ROM elevation)
  - Posterior Glide



Meningium Sternae  
Cartilage of ribs  
Sternum and Clavicle

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### Passive Accessory Assessment

- Glenohumeral
  - Anterior Glide
  - Posterior Glide
  - Inferior Glide
- Sternoclavicular
  - Inferior Glide
  - Posterior Glide
- Scapulothoracic
  - Anterior/Posterior Tilt
  - Upward/Downward Rotation
  - Internal/External Rotation
- Acromioclavicular
  - Caudal Glide
  - Anterior Glide
  - Posterior Glide

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### Special Tests

- Instability
- Impingement
- Rotator Cuff pathology
- Labral Pathology
- AC
- Scapular Dyskinesias



**Hegedus EJ, Goode A, Campbell S, et al.** Physical examination tests of the shoulder: a systematic review with meta-analysis of individual tests. *Br J Sports Med* 2008;42:80–92; discussion 92.

**Clinical tests in shoulder examination: how to perform them**  
 Maarten Hendrik Moen, Robert-Jan de Vos, Todd S Ellenbecker, et al.  
*Br J Sports Med* 2010 44: 370-375

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### The Evidenced-Based Shoulder Evaluation

Current Sports Medicine Reports  
Volume 13 • Number 5 • September/October 2014

John W. O’Kane, MD and Brett G. Toresdahl, MD

Positive LR	Magnitude of change
1	No difference
2	Small
5	Moderate
10	Large

- Positive Likelihood Ratio:  
 Probability that one with the condition has a positive test divided by the probability that one without the condition the condition has a positive result.

Negative LR	Magnitude of change
1	No difference
0.5	Small
0.2	Moderate
0.1	Large

- Negative Likelihood Ratio:  
 Probability that one with the condition has a negative test divided by the probability that one without the condition the condition has a negative result.

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Combining orthopedic special tests to improve diagnosis of shoulder pathology  
*Physical Therapy in Sport xxx (2014) 1-6*  
 Eric J. Hegedus <sup>a,\*</sup>, Chad Cook <sup>b</sup>, Jeremy Lewis <sup>c</sup>, Alexis Wright <sup>d</sup>, Jin-Young Park <sup>d</sup>

**Table 2**  
 Best test clusters from current literature.

Author(s)	Pathology	Test cluster	LR+	LR-
(Litaker et al., 2000)	Rotator cuff tear	1 Age > 65 and 2 Weakness in external rotation and 3 Night pain	9.84	0.54
(Park et al., 2005)	Rotator cuff tear (full thickness)	1 Age > 60 and 2 + painful arc test and 3 + drop arm test and 4 + infraspinatus test	28.0	0.09
(Park et al., 2005)	Impingement	1 + Hawkins-Kennedy and 2 + painful arc test and 3 + infraspinatus test	10.56	0.17
(Farber et al., 2006)	Anterior instability (traumatic)	1 + apprehension test and 2 + relocation test	39.68	0.19
(Guanche & Jones, 2003)	Labral tear	1 + relocation test and 2 + active compression test	4.56	0.65
(Guanche & Jones, 2003)	Labral tear	1 + relocation test and 2 + apprehension test	5.43	0.67

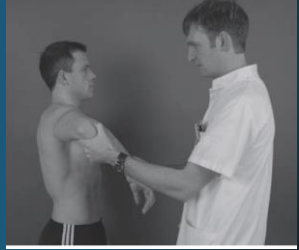
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**Impingement – Hawkins-Kennedy**

- Elevation to 90 degrees in scapular plane
- Stabilize scapula to prevent upward rotation
- GH Internal rotation
- (+) Pain subacromial region as Greater Tuberosity impinges against coracoacromial arch

+ LR : 1.84  
 - LR : 0.35

- Confirm (+) test with resisted muscle tests for RTC involvement (supra/infraspinatus)



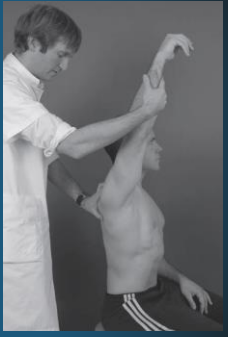
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**Impingement : Neers**

- Stabilize Scapula to prevent protraction
- Passive Elevation
- (+) Greater Tuberosity impinges supraspinatus and/or subacromial bursa against the acromium.

+ LR : 1.79  
 - LR : 0.47

- Confirm (+) test with resisted muscle tests for RTC involvement (supra/infraspinatus)




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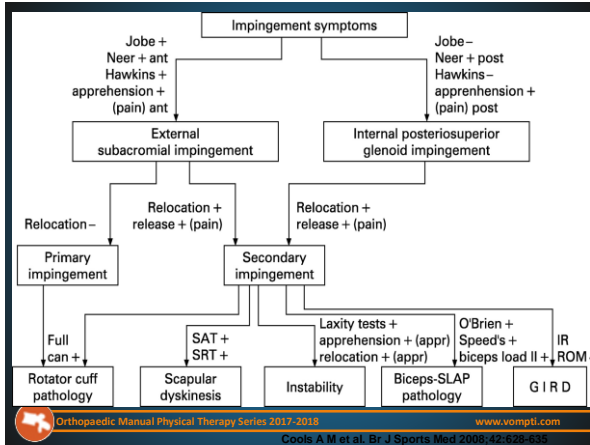
**Test Cluster : IMP**

- (+) Hawkins-Kennedy
- (+) Painful arc
- (+) Infraspinatus

(+) LR : 10.56  
 (-) LR : 0.17



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## Instability (Inferior)- Sulcus Sign

- Multidirectional instability
- Pt: Sitting Arm in Neutral
- Inferior Traction on humerus at elbow
- Test - Distance between inferior acromion, superior aspect humeral head
- Graded: 1+ - 3+ (cm displacement)

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## Instability (Posterior)- Posterior Subluxation (Jerk) Test

- Posterior instability
- Pt: Sitting
- Test: Adduction, IR, 70 -90 Flexion; Posteriorly directed force. Bring humerus into scapular plane - Horizontal ABD (+/-) ER
- (+) Test : "Clunk" as posterior subluxation is reproduced

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## Instability (Anterior) - Load and Shift

- Pt: Seated/Supine
- Test: Humeral head is "loaded" to centre it congruently within the glenoid fossa; then manually shifted anteriorly and posteriorly , relative to the glenoid fossa.
- (+) Laxity/Subluxation over glenoid rim

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## Instability - Apprehension

- Pt: Supine – 90 ABD, Maximal ER
- Contact - Posterior aspect GH
- Test – Anterior force at end ROM ER
- (+) Apprehension > Pain  
(+) LR : 17.21  
(-) LR : 0.39



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## Instability - Relocation

- Pt: Supine – 90 ABD, maximal ER
- Contact - Anterior aspect GH
- Test – Posterior force to humeral head at end ROM ER
- (+) Reduction in Pain/Apprehension; Increased ER



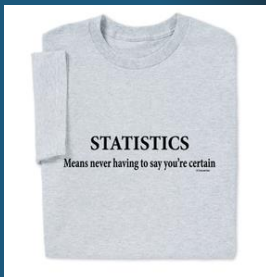
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## Test Cluster: Anterior Instability

### Anterior Instability

- (+) Apprehension
  - (+) Relocation
- (+) LR : 39.68  
(-) LR : 0.19

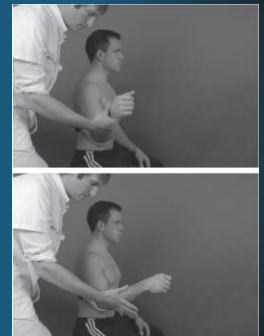


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## Rotator Cuff Tear – EXT ROT Lag Sign

- Pt seated : 20 degrees ABD, 90 elbow flexion – Full Ext Rot
- (+) Patient unable to hold full ER position when released
- Partial Thickness Tear  
(+) LR : 4.6  
(-) LR : 0.73
- Full Thickness Tear Supraspinatus  
(+) LR : 28.0  
(-) LR : 0.45
- Full Thickness Tear Infra/Supraspinatus  
(+) LR : 13.86  
(-) LR : 0.03



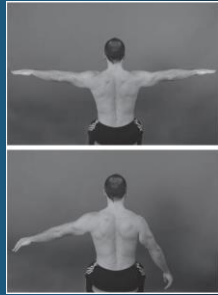
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### Rotator Cuff Tear – Drop Arm Test

- Passively abduct to 90 degrees
- Pt actively lower from 90 ABD
- (+) Pain, Scapular dyskinesia, Inability to lower



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### Rotator Cuff Tendon: Full Can/Jobe Test (Supraspinatus)

- Pt: Seated/standing
- Test: Scapular plane elevation 70-90 degrees.
- (+): Pain/weakness.
- Assess irritability of RTC/Supraspinatus
  - Partial tear/Tendinitis/Full thickness tear



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### Rotator Cuff Tear - Lift off Test

- Place hand over sacrum
  - Lift arm away from back
- (+) Subscapularis Tear
  - inability to lift off back/hold resistance

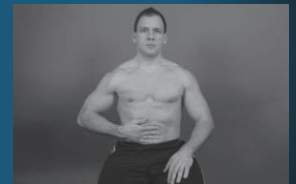


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### Rotator Cuff Tear (SubScap)– Belly Press Test

- Seated Hand on abdomen
- "Press into belly" – Maximal Internal Rotation
- (+) Test – C/o weakness – Inability to maintain IR (Elbow drops back, Shoulder Extends, Wrist flexes)
- (+) Subscapularis tear
  - (+) LR : 9.67
  - (-) LR : 0.14



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## Test Clusters: RTC Tear

- Age > 65
- Weakness in ER
- Night Pain

(+) LR : 9.84

(-) LR : 0.54

### Full Thickness Tear

- Age > 60
- Painful arc
- Drop Arm
- Infraspinitus

(+) LR : 28.0

(-) LR : 0.09

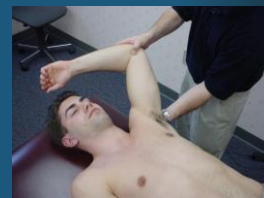


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## SLAP - Crank Test

- Pt Supine
- Scaption 160 degrees
- Axial load with humeral internal <-> external rotation
- (+) Pain with external rotation
- (+) Mechanical signs/sx
- Bucket-handle tear of from a Type III or Type IV SLAP lesion



(+) LR : 2.44

(-) LR : 0.51



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## Labral: Compression-Rotation Test

- Glenohumeral joint long axis compression with rotation

- (+) Provocation: Grind the labrum between the glenoid and the humeral head

- 90 - 160 degrees

- Variations

- Horizontal ABD with an anterosuperior directed force (anterosuperior labral lesions)

- Horizontal ADD with a posterosuperior directed force (posterior labral)

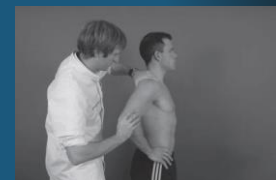


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## SLAP - Anterior Slide Test

- Pt stand/sit - Hands on hips, thumbs pointing posteriorly
- PT: Stabilize scapula posteriorly, over anterior acromium. Opposite hand posterior aspect elbow.
- Anterior, superior force through elbow - patient resists
- (+) Test: Mechanical signs/sxs ("clicking"); Reproduction of sxs
- Anterior, superior humeral head translation stress superior labrum; traction biceps tendon



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## SLAP – Biceps Load II

- Pt – Supine arm ABD to 120 degrees, maximal ER, elbow flexed to 90, supination
- Test – Resist elbow flexion
- (+) Pain/mechanical signs as superior labrum “peeled” off glenoid



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## Diagnostic accuracy of five orthopedic clinical tests for diagnosis of superior labrum anterior posterior (SLAP) lesions

J Shoulder Elbow Surg (2012) 21, 13-22

Chad Cook, PT, PhD, MBA<sup>a,\*</sup>, Stacy Beaty, MD<sup>b</sup>, Michael J. Kissenberth, MD<sup>c</sup>, Paul Siffri, MD<sup>c</sup>, Stephan G. Pill, MD<sup>c</sup>, Richard J. Hawkins, MD<sup>c</sup>

- 5 SLAP tests
  - O'Brien's
  - Dynamic Labral Shear Test
  - Speed's
  - Biceps Load II
  - Labral Tension
- MRI
- Confirmed Arthroscopically
- None provided diagnostic utility
  - Stand alone
  - Clustered
- 56% Concomitant findings
- **Biceps Load II test demonstrated utility in identifying patients with a SLAP-only lesion, with a PPV = 26**



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## SLAP – Biceps involvement – Speed's Test

- Pt : Seated – Elbow extended, full supination
- Test : Resist flexion 0-60 degrees
- (+): P! bicipital groove



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## SLAP – Passive Distraction Test

- Shoulder Flexed to 150 degrees
- Elbow extended, Forearm supinated
- Test: Forearm pronation
- (+) reproduce Pain



(+) LR : 8.83

(-) LR : 0.50




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### SLAP - Dynamic Labral Shear Test


- Passive ABD to 120 degrees
- Full ER at 90 degrees
- Shoulder lowered 120 to 60 degrees
- (+) mechanical symptoms, posterior joint pain  
(+) LR : 31.57  
(-) LR : 0.29



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### AC/Labral - O'Brien Test/Active Compression

- Pt : Standing - flexed to 90 degrees, 15 degrees Horiz ADD, full IR (pronation)
- Resist flexion pronated/IR
- Repeat in full supination/ER
- (+) AC - Incr superior P!
- (+) Labral - Incr "deep non specific" shoulder pain  
(+) LR (SLAP) : 1.06  
(-) LR : (SLAP) : 0.89



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### AC – Posterior Shear – Compression Paxino's Test


- Pt: Seated, UE neutral
- PT: Standing perpendicular to shoulder
  - Anterior hand contact distal Clavicle
  - Posterior hand stabilize posterior Acromium
- Assess: Posterior glide Clavicle on Acromium - Shear/Compression; Provoke Sxs



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### Test Cluster : Labral Tear

- (+) Relocation Test
- (+) Active Compression Test  
(+) LR : 4.56  
(-) LR : 0.65
- (+) Relocation Test
- (+) Apprehension Test  
(+) LR : 5.43  
(-) LR : 0.67



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## Choosing which SLAP test

Subjective History should guide your Objective Exam

- (1) Overhead Athletes that present with peel-back lesions
  - Peel-Back Injury:
    - Biceps Load II
    - Crank
- (2) Compression injuries from someone that falls onto an outstretched arm or on the side of the shoulder. This will compress and shear the labrum, similar to a meniscus tear
  - Compression Injury:
    - Active Compression
    - Compression Rotation
    - Anterior Slide
- (3) Traction injuries from a sudden eccentric biceps contraction (least common)
  - Traction Injury:
    - Speed's
    - Active Compression

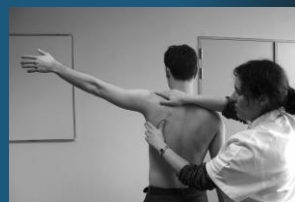


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## Scapular Dyskinesia – Scapula Assist Test

- Pt : Standing – Active Elevation
- PT : Gentle pressure to assist scapular upward rotation and posterior tilt
- (+) Test = Painful arc of impingement symptoms is relieved and the arc of motion is increased.

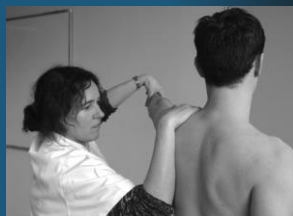


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## Scapular Dyskinesia – Scapula Relocation Test

- Pt: Standing – Supraspinatus test position
- Test: Resist "Full Can" Stabilize Scapula in retracted position; re test resisted Supraspinatus
- (+): Supraspinatus strength is increased or the symptoms relieved in the retracted position



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## Summary Special Tests

- **Instability**
  - Sulcus
  - Load and Shift
  - Jerk Test
  - Apprehension
  - Anterior Release
- **Impingement**
  - Neer
  - Hawkins-Kennedy
- **Rotator Cuff**
  - ER Lag sign
  - Drop Arm
  - Jobe/Full Can
  - Belly Press (subscap)
  - Lift Off (subscap)
- **SLAP**
  - Ant Slide
  - Biceps Load II
  - Compression-Rotation
  - Speed's
  - Crank
  - Passive Distraction
  - Dynamic Labral shear
- **AC**
  - O'Brien/Active compression
  - Paxino's
- **Scapular Dyskinesia**
  - Scapular Assist Test
  - Scapular Retraction Test



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## The Quick DASH

- The Quick DASH is a shortened version of the DASH Outcome Measure. Instead of 30 items, the Quick DASH uses 11 items to measure physical function and symptoms in people with any or multiple musculoskeletal disorders of the upper limb.

Two optional modules intended to measure symptoms and function in athletes, performing artists and other workers whose jobs require a high degree of physical performance. These optional models are scored separately.

The Quick DASH measure is a valid, reliable and responsive and can be used for clinical and/or research purposes.

<http://www.dash.iwh.on.ca/home>

## Psychometric properties of the shortened disabilities of the Arm, Shoulder, and Hand Questionnaire (QuickDASH) and Numeric Pain Rating Scale in patients with shoulder pain

J Shoulder Elbow Surg (2009) 18, 920-926

Paul E. Mintken<sup>a,\*</sup>, Paul Glynn<sup>b</sup>, Joshua A. Cleland<sup>c</sup>

### Conclusion

The results of our study indicate that the QuickDASH and the NPRS are **valid, reliable, responsive outcome measures** in patients with a primary complaint of **shoulder pain**. The QuickDASH exhibited **substantial test-retest reliability**, and had an **MDC of 11.2 percentage points** and an **MCID of 8 percentage points**.

Quick DASH					
Please rate your ability to do the following activities in the last week by circling the number below the appropriate response.					
	NO DIFFICULTY	MILD DIFFICULTY	MODERATE DIFFICULTY	SEVERE DIFFICULTY	UNABLE
1. Open a light or saw jar	1	2	3	4	5
2. Do heavy household chores (e.g., wash walls, floors)	1	2	3	4	5
3. Carry a shopping bag on level ground	1	2	3	4	5
4. Walk your yard	1	2	3	4	5
5. Use ladder or step stool	1	2	3	4	5
6. Recreational activities in which you take some form of support through your arm, shoulder or hand (e.g., golf, swimming, tennis, etc.)	1	2	3	4	5
7. During the past week, is your strength less than you would expect because of your arm, shoulder or hand problem?	1	2	3	4	5
	NOT AT ALL	SLIGHTLY LIMITED	MODERATELY LIMITED	VERY LIMITED	UNABLE
8. During the past week, was your work or other regular daily activities as a result of your arm, shoulder or hand problem?	1	2	3	4	5
	NOT LIMITED AT ALL	SLIGHTLY LIMITED	MODERATELY LIMITED	VERY LIMITED	UNABLE
9. During the past week, was your ability to do your work or other regular daily activities as a result of your arm, shoulder or hand problem?	1	2	3	4	5
	NO DIFFICULTY	MILD DIFFICULTY	MODERATE DIFFICULTY	SEVERE DIFFICULTY	EXTREME DIFFICULTY
10. Tingling (pins and needles) in your arm, shoulder or hand?	1	2	3	4	5
	NO DIFFICULTY	MILD DIFFICULTY	MODERATE DIFFICULTY	SEVERE DIFFICULTY	SO SEVERE DIFFICULTY THAT I CAN'T SLEEP
11. During the past week, how much difficulty have you had sleeping because of the pain in your arm, shoulder or hand?	1	2	3	4	5

WORK MODULE (OPTIONAL)					
The following questions ask about the impact of your arm, shoulder or hand problem on your ability to work (including homemaking if that is your main work role).					
Please indicate what your job/work is: _____					
<input type="checkbox"/> I do not work. (You may skip this section.)					
Please circle the number that best describes your physical ability in the past week:					
	NO DIFFICULTY	MILD DIFFICULTY	MODERATE DIFFICULTY	SEVERE DIFFICULTY	UNABLE
1. Using your usual technique for your work?	1	2	3	4	5
2. Doing your usual work because of arm, shoulder or hand pain?	1	2	3	4	5
3. Doing your work as well as you would like?	1	2	3	4	5
4. Spending your usual amount of time doing your work?	1	2	3	4	5
SPORTS/PERFORMING ARTS MODULE (OPTIONAL)					
The following questions relate to the impact of your arm, shoulder or hand problem on playing your musical instrument or sport or both. If you play more than one sport or instrument (or play both), please answer with respect to that activity which is most important to you.					
Please indicate the sport or instrument which is most important to you: _____					
<input type="checkbox"/> I do not play a sport or an instrument. (You may skip this section.)					
Please circle the number that best describes your physical ability in the past week:					
	NO DIFFICULTY	MILD DIFFICULTY	MODERATE DIFFICULTY	SEVERE DIFFICULTY	UNABLE
1. Using your usual technique for playing your instrument or sport?	1	2	3	4	5
2. Doing your usual amount of practice or sport because of arm, shoulder or hand pain?	1	2	3	4	5
3. Doing your usual amount of practice or sport as well as you would like?	1	2	3	4	5
4. Spending your usual amount of time practicing or playing your instrument or sport?	1	2	3	4	5

