Delaware Physical Therapy Clinic

540 S. College Ave., Suite 160
University of Delaware
Newark, Delaware 19713
Ph: (302) 831-8893
Fax: (302) 831-4468

Rehab Practice Guidelines for:
Bankart Repair

Primary surgery: Repair of Bankart Lesion, which is a detachment of AIGHL/capsulolabral complex from the anterior glenoid neck, usually caused by traumatic anterior dislocation

Expected # of visits: 11-29

Precautions and Notes	
Precautions	▪ Primary repair - **Avoid "High 5 / Low 5"** positions ▪ If Open repair[1]: **No active IR** for 4 weeks. **No IR strengthening** for 6-8 weeks. ▪ **If coupled with a SLAP repair, follow Open Bankart repair guidelines**
Notes	▪ Patients will only be seen before 4 weeks if they have range of motion limitations (IR, HOR ADD). ▪ Open repair[1] ○ Compromises the subscapularis. Be wary of subscapularis stretching or contraction with these procedures (especially if subscapularis is cut, not split). ○ Associated with slower recovery of strength, especially forward flexion, increased stiffness, and increased post-op pain[1]

Delaware Physical Therapy Clinic

540 S. College Ave., Suite 160
University of Delaware
Newark, Delaware 19713
Ph: (302) 831-8893
Fax: (302) 831-4468

Date of Surgery: _____

Bankart Repair Rehab Protocol

Timeline[3, 4]	Treatment	Milestones[1, 2]
Week 1 Dates: _____ to _____ ▪ No formal PT unless needed ▪ Use sling 24 hrs/day ▪ No driving	▪ Ice for pain and inflammation control ▪ Remove Sling TID for Pendulum exercises (Codman's)[6]	▪ Sleep comfortably through the night wearing sling
Weeks 2-4 Dates: _____ to _____ ▪ Begin PT 1-3 visits/week ▪ Able to remove sling at home but should use sling in crowds and uncontrolled situations ▪ Can perform tabletop activities with no ER allowed Total Visits: 3-12	▪ Modalities for pain and inflammation control as needed ▪ Scar Mobilization when incisions healed ▪ Joint Mobilization ○ *If hypomobile* - grade III/IV mobilizations for inferior glide only (no grade III/IV mobs for ant glide, posterior glide or distraction) ○ *If normal*- grade I/II mobilizations PRN ▪ PROM and AAROM exercises in all planes only to restrictions stated in milestones[1,2,6,10] ○ Sleeper Stretch for IR (in plane of scap) ○ AROM through full ROM without compensations (only to milestones) ▪ Isometric strengthening in all directions[3,7,6] ○ IR (unless open procedure, then wait until week 6) ER, ABD, forward flexion) ▪ Scapular control exercises[3,4,6] ▪ Begin rhythmic stabilization exercises[2,3,6,7] ▪ Elbow and grip ROM/strengthening PRN[2,3,6] ▪ Initiate HEP	PROM: ▪ **HOR ADD:** full ▪ **IR:** full in plane of scapula ▪ **ER:** 30° in plane of scapula ▪ **Ext:** to plane of the body ▪ **ABD:** 90° pure plane ▪ **Flexion:** ○ 90° pure plane ○ 120° across midline ▪ Normal glenohumeral jt. mobility ▪ No hypomobility or hypersensitivity of the scars
Week 5-6 Dates: _____ to _____ ▪ D/C use of sling ▪ 1-3 visits/wk ▪ **(If open repair: May initiate active IR week 4)** Total Visits: 5-18	▪ Progress ROM to milestones[1,2,6] ○ Progress Sleeper stretch by increasing angle of abduction ○ AROM to milestones without compensations ▪ Progress shoulder strengthening exercises from isometric to isotonic[2,3,6,10] ○ Sidelying gravity resisted ER/IR ○ T-band IR/ER with towel roll under arm at 0 deg ABD (no IR until week 6 if open procedure) ○ PNF ○ Shoulder flexion, scaption, and ABD to 90° ▪ Progress scapular strengthening exercises[3,4,6,7] ○ Progress serratus push-up plus to more horizontal surfaces ○ HOR ADD with T-band ○ Bilateral ER/scap retraction in 0° ABD with T-band ○ T-Band Rows to 20° ext ○ Prone mid trap exercises with scap retraction to plane of the body ▪ PRN, begin NMES to supraspinatus and infraspinatus using guidelines at end of protocol[9] ▪ Begin gentle dynamic stabilization exercises[2,3,6,7] ○ Rhythmic stabilizations with arm in 90° flexion— begin in supine and progress to seated ○ "Ball on the Wall" at 90° flexion ▪ Modify HEP accordingly	AROM/PROM: ▪ **HOR ADD:** full ▪ **IR:** full in plane of scapula ▪ **ER:** 45° in plane of scapula ▪ **Ext:** to 20° beyond plane of the body ▪ **Flex/ABD:** 135-140° pure plane

Delaware Physical Therapy Clinic

540 S. College Ave., Suite 160
University of Delaware
Newark, Delaware 19713
Ph: (302) 831-8893
Fax: (302) 831-4468

Weeks 7-8 Dates: _____ to _____ ▪ 1-3 visits/week Total Visits 8-24	▪ Continue to progress shoulder strengthening exercises[3,4,6,7] ○ T-band IR/ER at 90° ABD to begin week 8-10 ▪ Continue to progress scapular stabilization/strengthening exercises[3,4,5,6] ○ Closed chain exercises ○ Quadruped or tripod rhythmic stabilizations ▪ Progress dynamic stabilization exercises[2,3,6] ○ Progress rhythmic stabs to more challenging and functional positions ○ D2 PNF with manual resistance ○ Inertial machine IR/ER beginning in less ABD/ER and progressing to more ABD/ER ▪ PRN, continue NMES to supraspinatus and infraspinatus using guidelines at end of protocol[9] ▪ Initiate plyometrics (2 handed)[2,3,5,6,7] ▪ May initiate isokinetics in neutral (scapular plane) ▪ Modify HEP accordingly	▪ ROM ○ Maintains full ROM for flexion, ABD, and IR ○ When 70° ER at 90° of ABD achieved hold on progressing. If a thrower or overhead athlete, stop at 90° ▪ Independent with HEP ▪ Strength improving
Weeks 9-12 Dates: _____ to _____ ▪ 1-2 times/week Total Visits: 9	▪ Progress strengthening program prn[2,3,6,7] ▪ Progress plyometrics to 1 handed[2,3,5,6,7] ▪ Progress scap strengthening/stabilization exercises[3,4,6,7] ▪ Progress isokinetics to 45° ABD ▪ Begin gym strengthening program as part of HEP with appropriate weightlifting modifications.[6,8]	▪ MMT 5/5 all shoulder motions ▪ Full shoulder ROM equal to the uninvolved side ▪ Transition to gym program/HEP for strengthening
Weeks 13-15 Dates: _____ to _____	▪ Continue strengthening program prn[2,3,6,7] ▪ Continue plyometrics to 1 handed[2,3,5,6,7] ▪ Continue scap strengthening/stabilization exercises[3,4,6,7] ▪ Continue isokinetics to 45° ABD ▪ Continue gym strengthening program as part of HEP with appropriate weightlifting modifications[6,8]	▪ Continue gym program/HEP for strengthening
Weeks 16-26 ▪ Physical therapy is as needed for sport/work specific activities	▪ Continue strengthening, dynamic stabilization exercises as HEP and/or in PT prn[2,3,6,7] ▪ Begin sport specific interval training program and/or throwing progression[2,6,7] ▪ Progression of sport/work specific rehabilitation following soreness rules[7]	▪ Return to sport/work

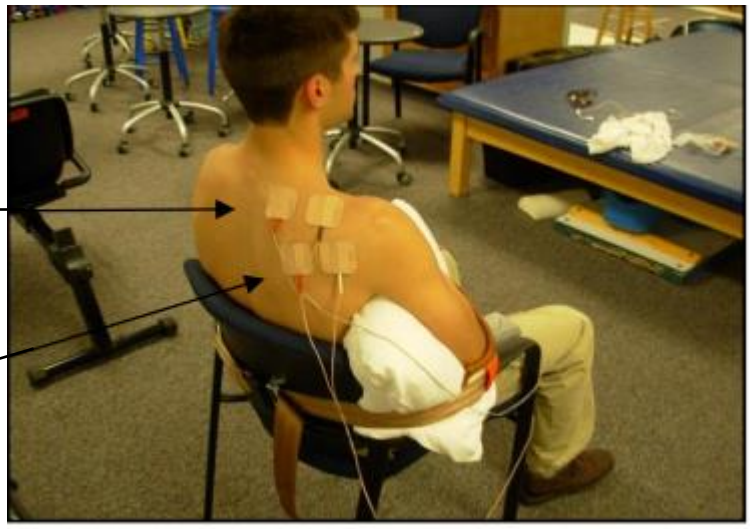
Delaware
Physical Therapy Clinic

540 S. College Ave., Suite 160
University of Delaware
Newark, Delaware 19713
Ph: (302) 831-8893
Fax: (302) 831-4468

Neuromuscular Electrical Stimulation NMES Guidelines[9]

- Patient Positioning: seated in a chair with arm in about 30° of elevation in scapular plane and neutral IR/ER using a mobilization belt to prevent movement

- Electrode Placement
  - Supraspinatus: both pads placed superior to spine of scapula. One pad placed at the medial border of the scapula and one pad placed at lateral border of scapula. Avoid the upper trapezius as much as possible.
  - Infraspinatus: both pads placed inferior to the spine of the scapula. One pad placed at the medial border of the scapula and one pad placed at the lateral border of the scapula.



- Parameters:
  - **EMPI 300PV unit:** Pulse width= 400 microseconds, frequency= 75 pulse per second, on time= 12 seconds, off time= 50 seconds, ramp time= 2 seconds. Intensity to tolerance, goal of visible tetanic contraction.
  - **Versastim:** Pulse width=2500Hz, frequency=75 bursts per second, on time=12 seconds, off time=50 seconds, ramp time=2 seconds. Intensity to tolerance, goal of visible tetanic contraction.

References

1. Rhee YG, Lim CT, Cho NS. Muscle Strength after anterior shoulder stabilization, arthroscopic versus open bankart repair. Am J Sports Med. 2007; 35:1859-1864.
2. Brotzman SB, and Wilk K. Clinical Orthopaedic Rehabilitation. St. Louis: Mosby, 2003. 125-250.
3. Wilmarth, MA, editor, Davies GJ, Wilk K, Ellenbecker T, Tyler T, Reinhold M, Heiderschei t B, Clark M, Manske R, Matheson J, Kraushaar D, and Mullaley M. Current Concepts of Orthopaedic Physical Therapy: The Shoulder- Physical Therapy Management utilizing current evidence, 2nd ed. 2006. APTA independent study course 16.2.4.
4. Moseley JB, Jobe F,Pink M, Perry J, and Tibone J. EMG Analysis of the scapular muscles during a shoulder rehabilitation program. Am J Sports Med. 1992;20:128-134.
5. Davies GJ, Dickhoff-Hoffman S. Neuromuscular testing and rehabilitation of the shoulder complex. JOSPT. 1993; 18:449-458
6. Kisner C, and Colby LA. Therapeutic Exercise: Foundations and Techniques, 4th ed. Philadelphia: F.A. Davis Company, 2002.
7. Wilk K, Meister K, and Andrews J. Current Concepts in the Rehabilitation of the Overhead Throwing Athlete. Am J Sports Med. 2002; 30: 136-151.
8. Fees M, Decker T, Snyder-Mackler L, Axe MJ. Upper extremity weight training modifications for the injured athlete. A clinical perspective. Am J Sports Med. 1998; 26(5): 732-42.
9. Reinold MM, Macrina LC, Wilk KE, Dugas JR, Cain EL, Andrews JR. The effect of neuromuscular electrical stimulation of the infraspinatus on shoulder external rotation force production after rotator cuff repair surgery. Am J Sports Med. 2008; 36(12): 2317-21.
10. Greis PE, Dean M, Hawkins RJ. Subscapularis tendon disruption after Bankart reconstruction for anterior instability. J Shoulder Elbow Surg. 1996; 5: 219-22.

Updated: March 2016