Postoperative Protocol For Posterior Labral Repair/ Capsular Plication-- Dr. Trueblood

**Indications:** Posterior shoulder instability is a relatively uncommon finding in normal adult shoulders. The most common causes are from repetitive, posteriorly directed stresses on the posterior capsule such as are seen in pressing and throwing athletes, ex. weightlifters, football linemen, and weight throwing athletes. The most characteristic cause is from electrical shocks or seizure activity. Acute dislocations in the young (<30yo) and locked or recurrent dislocations in all ages are an indication for surgical management.

**Technique:** The patient’s glenohumeral joint is exposed using an arthroscopic approach. The glenoid labrum is mobilized and trimmed back to healthy tissue using a full-radius shaver. A high-speed burr is placed on reverse and the rim of the glenoid and one centimeter of the posterior neck are prepared to healthy, bleeding bone without compromising bone stock. Once fully prepared, a 7 o’clock anchor is placed and its sutures passed through the posterior labrum in a horizontal mattress pattern. This is brought to tension and tied outside of the glenoid surface. At least two further #2 Fiberwire sutures are then placed through both capsule and labrum and then impacted into the glenoid face using knotless anchors to restore the insertion of the posterior labrum and to rebalance the joint to a centralized position. Additional sutures may be passed as needed. Once the repair is completed, a subacromial decompression is performed and any additional, indicated procedures are performed. Wounds are irrigated copiously and then closed in layers. The patient is then placed into sterile dressings and a sling with an abduction bolster.

**Preoperative education:**
- Instruct in scapular elevation, depression, retraction, and protraction (clock exercises)
- Preview safety and ADLs for life in a sling. Emphasize donning and doffing of shirts.
- Patient may remove sling for short periods of time and allow elbow to extend fully.

**Review postoperative precautions with patient and care-partner.**
- No shoulder AROM.
- No lifting of objects.
- When reclining or lying supine, the patient is encouraged to keep a pillow or blanket behind their elbow, preventing extension through the shoulder, to reduce stress on the anterior shoulder and subcoracoid space. This hurts. As a rule of thumb, the patient should always be able to see their elbow.
- No internal rotation (IR) past 0 degrees.
- No excessive stretching or sudden movements (particularly external rotation (ER)).
- No supporting of body weight by hand or elbow on involved side.
• May remove dressing and shower at 4 days postop, letting water run over the skin and patting the wounds dry with a clean towel. No standing in a pool for 3 weeks. No swimming for 10 weeks.
• Recommend a clean t-shirt over the shoulder in lieu of band-aids after
• No driving for 4 weeks

Physical Therapy Begins 2-4 days after surgery.
Physical Therapy 2-3 x/ week for 6 weeks

Weeks 0-4 Therapy
• Gripping exercises with putty
• AROM/ AAROM elbow flexion-extension and pronation-supination
• AROM cervical spine
• Passive ROM progressing to active-assisted ROM of GH joint with pulleys at 4 weeks.
  • External rotation to 25-30° at 30-45° of abduction
  • Internal rotation to 15-25° at 30-45° of abduction (begin week three)
• Submaximal pain free shoulder isometrics in the plane of the scapula-- In general all exercises begin with one set of 10 repetitions and should increase by one set of 10 repetitions daily as tolerated to five sets of 10 repetitions.
  • Flexion
  • Abduction
  • Extension
  • External rotation
  • Avoid IR isometrics at this point
• Cryotherapy: Ice after exercises for 20 minutes. Ice up to 20 minutes per hour to control pain and swelling.

First follow-up visit 2 weeks after surgery
☐ Wound check and stitch removal.
☐ Pain medication refills/ effectiveness assessment.
☐ Physical Therapy protocol update.
☐ Work restrictions: may type and write. No lifting, pushing, or pulling. May not drive
☐ Return to work:
  ☐ Cognitive work: 1-2 weeks
  ☐ Light manual (retail/ light personal service): 8 weeks
  ☐ Manual labor: 12-14 weeks
  ☐ Overhead lifting intensive manual work: 6 months
Weeks 4-6

- Range of motion exercises
  - PROM exercises of GH joint
    - External rotation in multiple planes of shoulder abduction (up to 90°)
    - Shoulder flexion to tolerance
    - Elevation in the plane of the scapula to tolerance
    - Shoulder abduction (pure) to 90°
    - Internal rotation 35° at 45° of abduction
  - Pulleys (AAROM)
    - Shoulder elevation in the plane of the scapula to tolerance
    - Shoulder flexion to tolerance
- Gentle self-capsular stretches as needed/indicated

Gentle Joint Mobilization
- Scapulothoracic joint
- GH joint (No posterior glides)
- SC joint
- AC joint

AROM Exercises
- Active abduction to 90°
- Active external rotation to 90°
- IR to 35°

Strengthening Exercises
- Elbow/wrist progressive resistive exercise program

Conditioning Program For:
- Trunk
- Lower extremities
- Cardiovascular endurance (Okay to start elliptical/ exercise bike. Avoid treadmill and running.)

Decrease Pain and Inflammation
Ice and modalities prn
Sling: Discontinue 6 weeks post surgery per physicians instruction

2nd postoperative visit 6 weeks after surgery
- Assess range of motion.
- Review postoperative restrictions and discontinue use of the sling.
- Pain medication refills/ effectiveness assessment.
Physical Therapy protocol update.

- Return to work:
  - Cognitive work: 1-2 weeks
  - Light manual (retail/ light personal service): 8 weeks
  - Manual labor: 12-14 weeks
  - Overhead lifting intensive manual work: 6 months

Phase 2: Intermediate Phase (Weeks 6-12)
Goals: Full, nonpainful ROM with normal scapulohumeral coordination at week eight (patient will not have full IR at this time)

Therapy Weeks 6-9
Range of Motion Exercises
- AROM/ AAROM as tolerated. Limit IR to no more than 40 degrees.
- Pulleys: flexion, abduction, and elevation in the plane of the scapula to tolerance
- Joint Mobilization: **No posterior glides**

Strengthening Exercises
- Initiate IR isometrics in slight ER (do not perform past neutral)
- Initiate theraband for internal and external rotation at 0° abduction (IR later in the phase)
- Shoulder abduction
- Shoulder flexion
- Latissimus dorsi
- Rhomboids
- Biceps curl
- Triceps kick-out over table
- Push-ups into wall (serratus anterior)

Weeks 10-12
Continue all exercises listed above
Initiate:
- Active internal rotation at 90° GH abduction with elbow at 90° flexion
- Dumbbell supraspinatus
- Theraband exercises for rhomboids, latissimus dorsi, biceps, and triceps
- Progressive push-ups
Next scheduled follow-up visit at week 12 after surgery

- Pain Assessment
- Work note:
  - Medium duty.
  - No overhead lifting.
- Therapy assessment:
  - Continue therapy
  - Advance therapy to Phase 3 when:
    - Full, nonpainful ROM
    - No complaints of pain/tenderness
    - Strength ~70% of contralateral side

Phase 3- Dynamic Strengthening
- AROM/ PROM of shoulder
- Strengthening:
  - Continue internal and external rotation theraband exercises with (arm at side)
  - Theraband for rhomboids
  - Theraband for latissimus dorsi
  - Theraband for a biceps and triceps
  - Progressive dumbbell exercises for supraspinatus and deltoid
  - Progressive serratus anterior push-up-anterior flexion
  - Continue trunk and lower extremity strengthening and conditioning exercises
    - may add cutting and pivoting exercise
    - agility and acceleration training okay
  - Continue capsule self-stretches
  - START:
    - Isotonic shoulder strengthening exercises isolating the rotator cuff
      - sidelying external rotation
      - prone arm raises at 0, 90 & 120°
      - prone external rotation
      - internal rotation at 0 & 90°
    - progress to standing strengthening exercise once able to tolerate resistance against gravity without substitution
    - Progress scapulothoracic/upper back musculature strengthening exercises
    - Dynamic stabilization exercises
    - Proprioceptive Neuromuscular Facilitation (PNF) exercises
Next follow-up visit at week 20:

- Pain and activity assessment
- Assess ROM and strength. Advance therapy to Phase 4 when:
  - Full ROM and normal kinematics
  - No pain or tenderness
  - Strength ~90% of contralateral side
- Schedule follow up at 6 months postop (~6 months)
- Work note: No overhead lifting. No restrictions for pushing or pulling in standing position. No restrictions for lifting or climbing.
- Expected Return to Work:
  - Cognitive work: 1-2 weeks
  - Light manual (retail/ light personal service): 8 weeks
  - Manual labor: 12-14 weeks
  - Overhead lifting intensive manual work: 6 months

Phase 4 (return to full, functional activity)
Therapy 1x/ week with emphasis on sport/activity specific conditioning.

Exercises:
- Continue theraband, and dumbbell exercises outlined in phase 3
- Continue ROM exercises as needed
  - Emphasis on pectoralis minor and rotator interval stretching
- Strength and conditioning:
  - RC and scapular stabilization strengthening
  - Initiate interval conditioning programs between weeks 28 and 32 (if patient is a recreational athlete)
  - Everyone starts light throwing for posterior capsular stretching.
  - Progress to functional activities needed for ADL’s and sport
  - For Throwing Athlete, start return to throwing protocol

Final follow-up at 6 months after surgery
- DASH and ASES Shoulder/ Elbow Score
- May resume unrestricted pressing including ballistic lifting and bench pressing.
- Continue return to throwing protocol under guidance of trainers/ coaches.
- Work restrictions: Return without restrictions.