After Posterior Shoulder Stabilization
Rehabilitation Protocol

Phase 1: Weeks 0-4
Restrictions
  ❖ No shoulder motion
Immobilization
  ❖ Use of a gunslinger orthosis for 4 weeks
Pain Control
  ❖ Reduction of pain and discomfort is essential for recovery
  ❖ Patients treated with an arthroscopic stabilization procedure experience less post-operative pain than patients treated with an open stabilization procedure
  ❖ Medications:
    ✓ Narcotics for 7-10 days following surgery
    ✓ NSAIDs for patients with persistent discomfort following surgery
  ❖ Therapeutic Modalities
    ✓ Ice, ultrasound, HVGS
    ✓ Ice at end of session
Motion: Shoulder
  ❖ None
Motion: Elbow
  ❖ Passive progress to active
    ✓ 0-130 degrees of flexion
    ✓ Pronation and supination as tolerated
Muscle Strengthening
  ❖ Grip strengthening only

Phase 2: Weeks 4-8
Criteria for Progression to Phase 2
  ❖ Adequate immobilization
Restrictions
  ❖ Shoulder motion: active ROM only
    ✓ Forward flexion 120 degrees
    ✓ Abduction 45 degrees
✓ External rotation as tolerated
✓ Internal rotation and adduction to stomach

❖ Avoid provocative maneuvers that re-create position of instability
✓ Avoid excessive internal rotation

Immobilization
❖ Gunslinger- discontinue

Pain Control
❖ Medications
✓ NSAIDs for patients with persistent discomfort
❖ Therapeutic modalities
✓ Ice, ultrasound, HVGS
✓ Moist heat before therapy as needed at week 6, ice at end of session

Shoulder Motion: Active Range of Motion Only
❖ Goals
✓ Forward flexion 120 degrees
✓ Abduction 45 degrees
✓ External rotation as tolerated
✓ Internal rotation and adduction to stomach

❖ Exercises
✓ Active ROM only

Muscle Strengthening
❖ Rotator cuff strengthening
❖ Closed-chain isometric strengthening with the elbow flexed to 90 degrees and the arm at the side
✓ Forward flexion
✓ External rotation
✓ Internal rotation
✓ Abduction
✓ Adduction

Strengthening of scapular stabilizers
❖ Closed-chain strengthening exercises
❖ Scapular retraction (rhomboideus, middle, trapezius)
❖ Scapular protraction (serratus anterior)
❖ Scapular depression (latissimus dorsi, trapezius, serratus anterior)
❖ Shoulder shrugs (trapezius, levator scapulae)

Phase 3: Weeks 8-12
Criteria for Progression to Phase 3
❖ Minimal pain and discomfort with active ROM and closed-chain strengthening exercises
❖ No sensation or findings of instability with above exercises

Restrictions
❖ Shoulder motion: active and active-assisted motion exercises
160 degrees of forward flexion
Full external rotation
70 degrees of abduction
Internal rotation and adduction to stomach

**Pain Control**
- **Medications**
  - NSAIDs for patients with persistent discomfort
- **Therapeutic modalities**
  - Ice, ultrasound, HVGS
  - Moist heat before therapy as needed, ice at end of session

**Motion: Shoulder**

**Goals**
- 160 degrees of forward flexion
- Full external rotation
- 70 degrees of abduction
- Internal rotation and adduction to stomach

**Exercises**
- Active ROM exercises
- Active-assisted ROM exercises

**Muscle Strengthening**
- Rotator cuff strengthening three times per week, 8-12 repetitions for three sets
  - Continue with closed-chain isometric strengthening
  - Progress to open-chain strengthening with Thera-bands
  - Exercises performed with the elbow flexed to 90 degrees
  - Starting position is with the shoulder in the neutral position of 0 degrees of forward flexion, abduction, and external rotation
  - Exercises are performed through an arc of 45 degrees in each of the five planes of motion
  - Six color-coded bands are available; each provides increasing resistance from 1-6 pounds, at increments of 1 pound
  - Progression to the next band occurs usually in 2-3 week intervals. Patients are instructed not to progress to the next band if there is any discomfort at the present level
  - Theraband exercises permit concentric and eccentric strengthening of the shoulder muscles and are a form of isotonic exercises (characterized by variable speed and fixed resistance)
    - Internal rotation
    - External rotation
    - Abduction
    - Forward flexion

- Progress to light isotonic dumbbell exercises
  - Internal rotation
 ✓ External rotation
 ✓ Abduction
 ✓ Forward flexion

Strengthening of scapular stabilizers
  ❖ Continue with closed-chain strengthening exercises
  ❖ Advance to open-chain isotonic strengthening exercises

Phase 4: Months 3-6

Criteria for Progression to Phase 4
  ❖ Minimal pain or discomfort with active ROM and muscle strengthening exercises
  ❖ Improvement in strengthening of rotator cuff and scapular stabilizers
  ❖ Satisfactory physical examination

Goals
  ❖ Improve shoulder strength, power, and endurance
  ❖ Improve neuromuscular control and shoulder proprioception
  ❖ Restore full shoulder motion
  ❖ Establish a home exercise maintenance program that is performed at least three times per week for both stretching and strengthening

Pain Control
  ❖ Medications
    ✓ NSAIDs for patients with persistent discomfort
    ✓ Subacromial injections: corticosteroid/local anesthetic combination for patients with findings consistent with secondary impingement
    ✓ GH joint: corticosteroid/local anesthetic combination for patients whose clinical findings are consistent with GH joint pathology
  ❖ Therapeutic modalities (as needed)
    ✓ Ice, ultrasound, HVGS
    ✓ Moist heat before therapy, ice at end of session

Motion: Shoulder

Goals
  ❖ Obtain motion that is equal to contralateral side
  ❖ Active ROM exercises
  ❖ Active-assisted ROM exercises
  ❖ Passive ROM exercises
  ❖ Capsular stretching (especially posterior capsule)

Muscle Strengthening
  ❖ Rotator cuff and scapular stabilizer strengthening as outlined above
  ❖ Three times per week, 8-12 repetitions for three sets

Upper Extremity Endurance Training
  ❖ Incorporated endurance training for the upper extremity
    ✓ Upper body ergometer

Proprioceptive Training
PNF patterns

Functional Strengthening
  • Plyometric exercises

Maximum improvement is expected by 12 months

Warning Signs
  • Persistent instability
  • Loss of motion
  • Lack of strength progression- especially abduction
  • Continued pain

Treatment of Complications
  • These patients may need to move back to earlier routines
  • May require increased utilization of pain control modalities as outlined above
  • May require imaging work-up or repeat surgical intervention