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Posterior Shoulder Instability Post-op Rehab Guidelines

The physical therapy rehabilitation program following shoulder posterior subluxation/dislocation surgical repair will vary in length depending on factors such as:

- Degree of shoulder instability/laxity
- Acute vs. chronic condition
- Length of time immobilized
- Strength/range-of-motion status
- Performance/activity demands

0-2 WEEKS POST SURGERY

- Arm in sling/immobilizer for 4 weeks total
- Modalities as needed
- Pendulum exercises
- PROM with ATC or PT no shoulder pulleys
  Flexion to 90°, Abduction to 90°, Internal Rotation to 10° in scapular plane, External Rotation to 30°, And Extension to neutral
- Isometric strengthening and ROM of the hand, wrist, and elbow

2-4 WEEKS POST SURGERY

- Relative immobilization critical for healing of soft tissues
- Avoid all active ROM exercises
- Advance PROM to: may use shoulder pulleys if tolerated, protect posterior capsule
  Flexion to 110°, Abduction to 100°, Extension to neutral, Internal Rotation to 20° in plane of scapula, And External Rotation to 40° in plane of scapula
- Wall walks

4-6 WEEKS POST SURGERY

- Patient no longer required to wear immobilizer/sling (at 6 weeks)
- Use of modalities as needed (heat, ice, electrotherapy).
- Continue gentle passive range-of-motion exercises. Add range-of-motion exercises for shoulder internal rotation, as needed.
- Add active-assistive range-of-motion exercises (i.e., wand exercises).
- Add gentle joint mobilization, as needed.
- Shoulder shrug exercises.
- Isometric internal and external rotation with arm at side and elbow flexed at 90° may be added according to the patient's tolerance.

Note: The shoulder position may be adjusted to allow a pain free muscle contraction to occur.

- Isometric shoulder flexion and extension may be added as needed.
- As strength improves, active external rotation may be added. Use surgical or rubber tubing for resistance. If there is pain with active movements, continue with isometric strengthening.

- Active horizontal abduction - lying prone. Restrict movement from 45° of horizontal adduction to full horizontal abduction to avoid excessive stress to the posterior capsule

6-8 WEEKS POST SURGERY

- Continue passive and active-assistive range-of-motion exercises. May add wall climbs for shoulder flexion and abduction.
- Continue mobilization, as needed.
- As strength improves, progress to free weights for external rotation in prone lying position with arm abduction to 90° or side-lying with arm at side.
- **Prone:** Perform combined movements of horizontal abduction followed by external rotation to protect the posterior capsule.
- **Side-lying:** Limit the degrees of internal rotation to protect the posterior capsule.
- Add supraspinatus exercises if movement is pain free and adequate range-of-motion is available (0°_90°). Shoulder is positioned in the scapular plane approximately 20°_30° forward of the coronal plane.
- Add active internal rotation using free weights. Movement is performed supine with the arm at the side and the elbow flexed at 90°.
- Active shoulder flexion through available range-of-motion.
- Active shoulder abduction to 90°.

2-3 MONTHS POST SURGERY

- Continue range-of-motion and mobilization, as needed. Patient should have full passive and active range-of-motion.
- Add shoulder stretch (anterior cuff/capsule or posterior cuff/capsule), as needed.
- Add push-ups. Movement should be pain free with emphasis on protecting the posterior joint capsule. Shoulders are positioned in 80° to 90° of abduction. *Caution is applied during the ascent phase of the push-up to avoid excessive stress to the posterior capsule. Do not raise the body beyond the scapular plane.* Begin with wall push-ups. As strength improves, progress to floor push-ups (modified - hands and knees or military - hands and feet), as tolerated by the patient.
- Continue isotonic strengthening with emphasis on the rotator cuff and posterior deltoid.
- Active internal rotation using surgical or rubber tubing may be added. Range of movement may be limited to avoid excessive stress to the posterior joint capsule.
- Proprioceptive neuromuscular facilitation (PNF) upper extremity patterns may be added. Emphasis is on the flexion/abduction/external rotation diagonal.
    - **Starting Position:** Caution is applied to protect the posterior capsule from excessive stress. Adjustments are made by starting one-quarter of the way in the diagonal.
    - **Range-of-Movement:** Movement will be limited to the latter three-quarter range in the diagonal to full flexion/abduction/external rotation.
- Horizontal abduction may be performed through an increased range (starting position at 90° of horizontal adduction, as tolerated).

5 MONTHS POST SURGERY

- Isokinetic Test. Perform isokinetic strength and endurance test for the following suggested movement patterns: internal/external rotation (arm at side), horizontal abduction, and abduction/adduction.
- Continue to progress isotonic and isokinetic exercises.
- Continue to emphasize the eccentric phase in strengthening the rotator cuff.
- Isokinetic exercises for shoulder flexion/extension and abduction/adduction may be added.
- Add military press. Press the weight directly over or behind the head.
- Continue arm ergometer.
- Add total body conditioning with emphasis on strength and endurance. Include flexibility exercises, as needed.

6 MONTHS POST SURGERY

- Isokinetic Test. The second isokinetic test for shoulder internal/external rotation, horizontal abduction/adduction, and abduction/adduction is administered. For internal/external rotation, the shoulder may be tested in the functional position (80^0 to 90^0 of abduction). Test results for internal/external rotation and horizontal abduction should demonstrate at least 80% strength and endurance (as compared to the uninvolved side) before proceeding with exercises specific to the activity setting.
- Continue total body conditioning program with emphasis on the shoulder (rotator cuff, posterior deltoid).

Skill Mastery

- Begin practicing skills specific to the activity (work, recreational activity, sports, etc.). *For example, throwing athletes (i.e., pitchers) may proceed to throwing program.*
- Progressive Shoulder Throwing Program. Advance through the sequence, as needed.

Guidelines: It is important to use heat prior to stretching (i.e., hot pack, whirlpool, hot shower, etc.). Heat increases circulation and activates some of the natural lubricants of the body. Perform stretching exercises after applying the heat modality and then proceed with the throwing program. Use ice after throwing to reduce cellular damage and decrease the inflammatory response to microtrauma. Proceed with tossing the ball (no wind-up) on alternate days, not more than 20 feet for 10-15 minutes

6-1/2 MONTHS POST SURGERY

- Easy tossing 30-40 feet, no wind-up, on alternate days, for 10-15 minutes.

7 MONTHS POST SURGERY

- Add other endurance activities (i.e., jogging, biking) to the total body conditioning program.
- Continue stretching and strengthening exercises to the wrist, elbow, and shoulder.
- Chin-up exercises.
- Swimming may be added as part of the exercise program (the butterfly stroke is not recommended).
- Lob the ball (playing catch with an easy wind-up) on alternate days, throwing the ball not more than 30 feet. Lobbing should be limited to 2-3 times per week and 10-15 minutes per session.

8 MONTHS POST SURGERY

- Increase the throwing distance to 40 feet while still lobbing the ball (easy wind-up).
- Alternate days for the throwing and strengthening program. Increase the throwing time to 15-20 minutes per session

8-1/2 MONTHS POST SURGERY

- Increase the throwing distance to 60 feet while still lobbing the ball with an occasional straight throw at nor more than one-half speed. Increase the throwing time to 20-25 minutes per session.

RETURN TO SPORT/ACTIVITY

- When cleared by physician
- Pass strength test
- Throwers complete throwing program
- No pain with all desired level of activities
- 4-6 months