

# **Atte Sports Ortho Consults**

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# PHYSICAL THERAPY PROTOCOL FOR POSTERIOR SHOULDER STABILIZATION AND TYPE VIII SLAP REPAIR

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 versus chronic condition
- Length of time immobilized
- Strength/range-of-motion status
- Performance/activity demands

## 0-6 WEEKS POST SURGERY (Patient Responsibility)

Range of motion exercises should be performed starting the day after shoulder surgery; exercises are to be done **3 - 4 times a day, 15 repetitions each.** The sling may or may not need to be removed to exercise (depending on the brand). A portion of the exercise program requires the assistance of a friend or a family member. This period of limited activity is critical for the healing of the soft tissues and promotion of a stable shoulder.

### 3-6 WEEKS POST SURGERY (Formal Physical Therapy)

- 1. Patient must continue to wear sling with abductor pillow.
- 2. Use of modalities as needed (heat, ice, electrotherapy).
- **3.** Continue active range-of-motion exercises. Add range-of-motion exercises for shoulder internal rotation as needed.
- 4. Add active-assistive range-of-motion exercises (i.e., wand exercises).
- **5.** Add gentle joint mobilization as needed.
- 6. Shoulder shrug exercises.
- 7. Isometric internal and external rotation with arm at side and elbow flexed at 90° may be added according to the patient's tolerance.

<u>Note:</u> 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.

**8.** 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**

- 1. Discontinue shoulder sling and abductor pillow.
- 2. Continue range-of-motion exercises. May add wall climbs for shoulder flexion and abduction.
- 3. Continue mobilization as needed.
- **4.** 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.
  - <u>Side-lying:</u> Limit the degrees of internal rotation to protect the posterior capsule.
- **5.** 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.
- **6.** Add active internal rotation using free weights. Movement is performed supine with the arm at the side and the elbow flexed at 90°.
- 7. Active shoulder flexion through available range-of-motion.
- 8. Active shoulder abduction to 90°.

### 2-3 MONTHS POST SURGERY

- **1.** Continue range-of-motion and mobilization, as needed. Patient should have full passive and active range-of-motion.
- 2. Add shoulder stretch (i.e., anterior cuff/capsule or posterior cuff/capsule) as needed.
- 3. Add push-ups (after 3 months). 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.
- **4.** Continue isotonic strengthening with emphasis on the rotator cuff and posterior deltoid.
- **5.** 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.
- **6.** Proprioceptive neuromuscular facilitation (PNF) upper extremity patterns may be added. Emphasis is on the flexion/abduction/external rotation diagonal.
  - <u>Starting Position:</u> 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.
- **7.** Horizontal abduction may be performed through an increased range (starting position at 90° of horizontal adduction as tolerated).

#### 4 MONTHS POST SURGERY

- 1. Continue to progress weights, as tolerated (i.e., rotator cuff, horizontal abduction/adduction, flexion, abduction, etc.). Emphasis may be placed on the eccentric phase of contraction in strengthening the rotator cuff.
- 2. Active horizontal adduction may be added.
- 3. Add arm ergometer for endurance exercises.
- **4.** Isokinetic strengthening and endurance exercises (high speeds 200+ degrees/second) for shoulder internal/external rotation (arm at side) and horizontal abduction may be added. Prerequisite strength requirements of the rotator cuff are 5-10 pounds for external rotation and 15-20 pounds for internal rotation. The shoulder should be pain free and have no significant amount of swelling.
- **5.** Initiate <u>Interval Throwing Program Phase I</u>\* for throwing athletes (specific ninemonth program for pitchers and for infielders, outfielders and catchers).

\*Complete Throwing Program booklet will be provided through this office.

## **5 MONTHS POST SURGERY**

- 1. 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.
- 2. Continue to progress isotonic and isokinetic exercises.
- 3. Continue to emphasize the eccentric phase in strengthening the rotator cuff.
- **4.** Isokinetic exercises for shoulder flexion/extension and abduction/adduction may be added.
- 5. Add military press. Press the weight directly over or behind the head with low weights.
- **6.** Continue arm ergometer.
- **7.** Add total body conditioning with emphasis on strength and endurance. Include flexibility exercises as needed.
- 8. Continue Interval Throwing Program.

#### **6 MONTHS POST SURGERY**

- 1. 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° to 90° 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.
- 2. Continue total body conditioning program with emphasis on the shoulder (rotator cuff, posterior deltoid).
- **3.** Skill Mastery. Begin practicing skills specific to the activity (work, recreational activity, sports, etc.).
- 4. Continue Interval Throwing Program.

# **7-8 MONTHS POST SURGERY**

- **1.** Add other endurance activities (i.e., jogging, biking) to the total body conditioning program.
- 2. Continue stretching and strengthening exercises to the wrist, elbow, and shoulder.
- **3.** Chin-up exercises.
- **4.** Swimming may be added as part of the exercise program (the butterfly stroke is not recommended).
- 5. Continue Interval Throwing Program.

# 9 MONTHS POST SURGERY

- 1. Completion of <u>Interval Throwing Program</u> (*Phase I, II & III for pitchers; Phase I & II for infielders, outfielders and catchers*)
- 2. Clearance for return to sports by physician.