The rehabilitation guidelines are presented in a criterion based progression. General time frames are given for reference to the average, but individual patients will progress at different rates depending on their age, associated injuries, pre-injury health status, rehab compliance and injury severity. Specific time frames, restrictions and precautions may also be given to protect healing tissues and the surgical repair/reconstruction.

### PHASE 1 (Surgery to 0-3 weeks post op)

| APPOINTMENTS | Meet with the physician at 1 post op  
| Begin physical therapy within 7 days after surgery |
| REHAB GOALS | 1. Protection of the post-surgical shoulder  
| 2. Activation of the stabilizing muscles of the gleno-humeral and scapulo-thoracic joints  
| 3. Maintain ROM at the elbow and wrist |
| PRECAUTIONS | 1. Sling immobilization required for soft tissue healing for 4 weeks. Remove sling during the 4th week in safe environments and discontinue after 4 weeks  
| 2. Hypersensitivity in axillary nerve distribution is a common occurrence  
| 3. No internal rotation past neutral for 6 weeks and no internal rotation with abduction for 8 weeks to protect repaired tissue  
| 4. Gentle PROM in flexion, abduction, external rotation |
| SUGGESTED THERAPEUTIC EXERCISE | • Begin week 3, sub-maximal shoulder isometrics for IR/ER, flex/ext, & abd/add  
| • Hand gripping  
| • Elbow, forearm and wrist AROM  
| • Cervical Spine and scapular AROM  
| • Desensitization techniques for axillary nerve distribution  
| • Postural exercises |
| CARDIOVASCULAR FITNESS | Walking, stationary bike - sling on. **No TREADMILL**  
(Avoid running and jumping due to the distractive forces that can occur at landing) |
<p>| PROGRESSION CRITERIA | 3 weeks post op |</p>
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| APPOINTMENTS | Meet with the physician at 12 weeks post op  
Physical therapy 1x/2-3 weeks |
| PHASE III GOALS | 1. Full AROM in all cardinal planes with normal scapulo-humeral movement  
2. 5/5 rotator cuff strength at 90 degrees abduction in the scapular plane  
3. 5/5 peri-scapular strength |
| PRECAUTIONS | 1. Avoid posterior pain with activity/rehab. Post activity soreness should be mild and subside within 24 hours  
2. All exercises and activities to remain non-provocative and low to medium velocity  
3. Avoid activities where there is a higher risk for falling or outside forces to be applied to the arm  
4. No swimming or throwing sports |
| SUGGESTED THERAPEUTIC EXERCISE | Motion  
No restrictions for internal rotation, normalize to other side gradually and with appropriate end feel  
Strength and Stabilization  
Flexion in prone, hor abd in prone, full can ex, D1 and D2 diagonals in standing below 90 degrees abduction  
TB/cable column/ dumbbell (light resistance/high rep) IR/ER in 90 degrees abduction and rowing |
| CARDIOVASCULAR FITNESS | Walking, biking, stairmaster and running (if they have met Phase II criteria) NO SWIMMING |
| PROGRESSION CRITERIA | Patient may progress to Phase IV if they have met the above stated goals and are at least 12 weeks post op |
PHASE IV (Begin when goals and criteria from Phase III are met, ~12 wks)

| APPOINTMENTS | Meet with the physician at 18 weeks post op  
|              | Physical therapy 1x/3 weeks |
| PHASE IV GOALS | 1. Patient to demonstrate stability with higher velocity movements and change of direction movements  
|               | 2. 5/5 rotator cuff strength with multiple repetition testing at 90 degrees abduction in the scapular plane  
|               | 3. Full multi-plane AROM |
| PRECAUTIONS | 1. Avoid posterior pain with activity/rehab. Post activity soreness should be mild and subside within 24 hours  
|               | 2. Progress gradually into provocative exercises by beginning with low velocity, known movement patterns  
|               | 3. Progress gradually into closed chain exercise focusing on ability to control posterior forces |
| SUGGESTED THERAPEUTIC EXERCISE | Strength and Stabilization  
|                                 | Dumbbell and medicine ball exercises that incorporate trunk rotation and control with rotator cuff strengthening at 90 degrees abduction. Begin working towards more functional activities by emphasizing core and hip strength and control with shoulder exercises  
|                                 | TB/cable column/ dumbbell IR/ER in 90 degrees abduction and rowing  
|                                 | Balance board in push-up position (with RS), prone seiss ball walk-outs, rapid alternating movements in supine D2 diagonal, CKC stabilization with narrow base of support |
| CARDIOVASCULAR FITNESS | Walking, biking, stairmaster and running (if they have met Phase III criteria) NO SWIMMING |
| PROGRESSION CRITERIA | Patient may progress to Phase V if they have met the above stated goals and have no apprehension or internal impingement signs |

PHASE V (Begin when goals and criteria from Phase IV are met, ~18 wks)

| APPOINTMENTS | Meet with the physician at 24 weeks post-op  
|              | Physical therapy 1x/ 3 weeks |
PHASE V GOALS

1. Patient to demonstrate stability with higher velocity movements and change of direction movements that replicate sport specific patterns (including swimming, throwing, etc)
2. No apprehension or instability with high velocity overhead movements
3. Improve core and hip strength and mobility to eliminate any compensatory stresses to the shoulder
4. Work capacity cardiovascular endurance for specific sport or work demands

PRECAUTIONS

1. Progress gradually into sport specific movement patterns
2. Avoid posterior pain with activity. Post activity soreness should be mild and subside within 24 hours

SUGGESTED THERAPEUTIC EXERCISE

Strength and Stabilization
Dumbbell and medicine ball exercises that incorporate trunk rotation and control with rotator cuff strengthening at 90 degrees abduction and higher velocities. Begin working towards more sport specific activities

High velocity strengthening and control, such as the inertial, plyometrics, rapid theraband drills. Plyometrics should start with 2 hand below shoulder height and progress to overhead, then back to below shoulder with one hand, progressing again to overhead

Higher velocity strengthening and dynamic control, such as the inertial, plyometrics, rapid theraband drills

Initiate throwing program, overhead racquet program or return to swimming program depending on the athlete’s sport

CARDIOVASCULAR FITNESS

Design to use sport specific energy systems

PROGRESSION CRITERIA

Patient may return to sport after receiving clearance from the Orthopedic Surgeon and the Physical Therapist/Athletic Trainer

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 wts.
6. Continue arm ergometer.
7. Add total body conditioning with emphasis on strength and endurance. Include flexibility exercises, as needed.

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.). For example, throwing athletes (i.e., pitchers) may proceed to throwing program.
4. 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

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

7 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. 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

1. 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

1. Increase the throwing distance to 60 feet while still lobbing the ball with an occasional straight throw at no more than one-half speed. Increase the throwing time to 20-25 minutes per session.

PROGRESS TO THE FOLLOWING ROUTINE:

9 MONTHS POST SURGERY – STEP 1

1. Perform long, easy throws from the mid-outfield (150-200 feet) getting the ball barely back to home plate on 5-6 bounces. This is to be performed for 20-25 minutes per session on two consecutive days. Then rest the arm for one day. Repeat four times over a 12 day period then progress to the next step if able to complete it without pain or discomfort, i.e.:

   - THROW Two Days
   - REST One Day
   - THROW Two Days
   - REST One Day
   - THROW Two Days
   - REST One Day
   - THROW Two Days
   - REST One Day

If problems arise, contact your physical therapist, athletic trainer, or physician.

9-1/2 MONTHS POST SURGERY – STEP 2

1. Long, easy throws from the deepest portion of the outfield, with the ball barely getting back to home plate on numerous bounces. This is to be performed for 25-30 minutes per session on two consecutive days. Then rest the arm for one day. Repeat the routine over a 12-day period and progress to the next step, if there is no pain or discomfort.
10 MONTHS POST SURGERY – STEP 3

1. Stronger throws from the mid-outfield, getting the ball back to home plate on 1-2 bounces. This should be performed approximately 30-35 minutes per session on two consecutive days. Rest the arm for one day. Repeat the same routine four times over a 12-day period. If there is no pain or discomfort, progress to the next step.

10-1/2 MONTHS POST SURGERY – STEP 4

1. Short, crisp throws with a relatively straight trajectory from the short outfield on one bounce back to home plate. These throws are to be performed not more than 30 minutes on two consecutive days. Rest one day. Repeat this step over the next two weeks.

11 MONTHS POST SURGERY – STEP 5

1. Return to throwing from your normal position (i.e., mound). The throw should be at one-half to three-quarter speed with emphasis on technique and accuracy. Throw for two consecutive days then rest the arm for one day. A throwing session should not be more than 25 minutes. Repeat this step over the next two weeks, and then advance if there is no pain or discomfort.

11-1/2 MONTHS POST SURGERY – STEP 6

1. Throw from your normal position at three-quarter to seven-eighths speed. This should be done following the same sequence, throwing for two consecutive days and resting for one day over a 12-day period. Session should not be more than 30 minutes.

12 MONTHS POST SURGERY – STEP 7

1. Continue to throw from your normal position at three-quarter to full-speed. This should be done over the next two weeks following the same pattern. Slowly increase the time throwing from your normal position.

12-1/2 TO 14 MONTHS POST-SURGERY – STEP 8

1. Simulate game-day situation. Warm up with appropriate number of pitches and throw for an average amount of innings taking usual rest breaks between innings. Repeat simulation a couple of times with 3-4 days rest. Return to normal pitching regimen or routine based on input from the team physician, physical therapist, athletic trainer, coach, and most important of all, the athlete.

**DISCHARGE INSTRUCTIONS & PHYSICAL THERAPY INSTRUCTIONS FOR ARTHROSCOPIC POSTERIOR STABILIZATION**

Initial recovery after shoulder surgery entails healing, controlling swelling and discomfort and regaining some shoulder motion. The following instructions are intended as a guide to help you achieve these goals until your 1st postoperative visit.
Comfort:
Although surgery uses only a few small incisions around the shoulder joint, swelling and discomfort can be present. To minimize discomfort, please do the following:

**Ice** – Ice controls swelling and discomfort by slowing down the circulation in your shoulder. Place crushed ice in plastic bag over your shoulder for no more than 20 minutes, 3 times a day.

**Pain Medication** – Take medications as prescribed, but only as often as necessary. Avoid alcohol and driving if you are taking pain medication.

**Antibiotic Medication** – If an antibiotic has been prescribed, start taking the day of your surgery. The first dose should be around dinnertime. Continue taking until the prescription is finished.

**Sling** – A sling has been provided for your comfort and to stabilize your shoulder for proper healing. Continue wearing the sling for a period of approximately six weeks or until Sports Medicine directs you to stop.

**Driving** – Driving is NOT permitted as long as the sling is necessary.

B. Activities:

1. You are immobilized with a sling and abductor pillow, full time, for approximately the first 6 weeks. Your doctor can tell you when you can discontinue use of the sling at your 1st postoperative visit. The sling may be removed for exercises.

2. Your sling may be removed for gentle PASSIVE range-of-motion (PROM) exercises. (SOMEONE ELSE MOVES YOUR SHOULDER). This should be done 3x a day/15 repetitions (ABDUCTION ONLY – away from your body).

3. Active range-of-motion (AROM – you move your shoulder) should be performed for shoulder internal/external rotation. Keep elbow positioned at the side and flexed at 90° so forearm is parallel to the floor. This should be done within a comfortable range until you feel slight pain (3x a day for 15 repetitions). You can shrug your shoulders.

4. While your sling is off you should flex and extend your elbow and wrist – (3x a day for 15 repetitions) to avoid elbow stiffness.

5. Ball squeezes should be done in the sling (3x a day for 15 squeezes).

6. You may NOT move your shoulder by yourself in certain directions. NO active flexion (lifting arm up) or abduction (lifting arm away from body) until Sports Medicine or your therapist gives permission. These exercises must be done by someone else (Passive Range of Motion).

7. Physical therapy will begin approximately 3-4 weeks after surgery. Make an appointment with a therapist of your choice for this period of time. You have been given a prescription and instructions for therapy. Please take these with you to your first therapy visit.

8. Athletic activities such as throwing, lifting, swimming, bicycling, jogging, running, and stop-and-go sports should be avoided until cleared by Sports Medicine.

Wound Care:
Keep the dressing on, clean and dry for the first 3 days after surgery.
Remove the dressing 3 days after surgery. The steri-strips (small white tape that is directly on the incision areas) should be left on until the first office visit. You may apply band-aids to the small incisions around your shoulder.
You may shower 5 days after surgery with band-aids on. Apply new band-aids after showering.
Tub bathing, swimming, and soaking should be avoided for two weeks after your surgery.

**Eating:**
Your first few meals after surgery should include light, easily digestible foods and plenty of liquids, as some people experience slight nausea as a temporary reaction to anesthesia.

**Call your physician if:**
Pain persists or worsens in the first few days after surgery.
Excessive redness or drainage of cloudy or bloody material from the wounds. (Clear red tinted fluid and some mild drainage should be expected). Drainage of any kind 5 days after surgery should be reported to the doctor.
Temperature elevation greater than 101°.
Pain, swelling, or redness in your arm or hand.
Numbness or weakness in your arm or hand.

**Return to the office**
Your first return to the office should be within the first 1-2 weeks after your surgery. Call Sports Medicine office to make your first postoperative appointment.