Rehabilitation Protocol
Posterior Shoulder Reconstruction

Frank B. Norberg, MD
Kayla Brown, PA-C
Office: 952-456-7000

Post-Op Appointments: 1 WEEK, 5 WEEKS, 10 WEEKS, 16 WEEKS

PHASE I (WEEKS 0 – 4)

Appointments: Home therapy

Immobilization
- Fixed external rotation immobilization with supporting abduction pillow to be worn at all times except for showering and rehab under guidance of PT. Patient should remain in brace for 6 weeks.
- Wear sling while sleeping

Precautions
- Sling immobilization required for soft tissue healing for 6 weeks after surgery; remove the sling during post-operative week 6 in a safe/controlled environment.
- No shoulder internal rotation past neutral for 6 weeks. No shoulder internal rotation with abduction for 8-10 weeks after surgery to protect repair. No internal rotation from behind back for 8 weeks.

Therapeutic Exercise
- Hand grip strength
- Elbow, forearm, and wrist AROM
- Cervical spine and scapular AROM
- Desensitization techniques for axillary nerve distribution.
- Postural/Core stabilization

Cardiovascular Fitness
- Stationary Bike
- Walking
- Avoid cardiovascular exercise with running/jumping due to distractive forces during landing.

Modalities
- Ice after PT (PRN)

PHASE II (WEEKS 5 – 8)

Therapy Appointments
- Rehabilitation appointments are 1-2 times per week

Immobilization
- Discontinue sling immobilization at post operative week 6

Precautions
- Remain in sling except for exercises beginning at week 4.
- No internal rotation until post operative week 6.

Therapeutic Exercise
- Begin passive external rotation and forward flexion at week 4.
- Progress to AAROM external rotation and forward flexion beginning at week 6.
- Begin isometric strengthening at post operative week 8.
- Continue Phase 1 exercises as needed.

Cardiovascular Fitness
- Stationary Bike, Stairmaster, walking
- No swimming, running.

Progression Criteria
- Full active ROM, except shoulder internal rotation
- Submaximal isometric strengthening.

PHASE III (WEEKS 8 – 12)

Appointments
- Rehabilitation appointments are once every week decreasing frequency to once every other week towards the end of phase III.]

Rehabilitation Goals
- Full shoulder AROM, progress to submaximal internal rotation
- Progress rotator cuff strengthening, starting with isometrics.
- Full peri-scapular strength

Precautions
- Avoid posterior pain with activity and rehabilitation; post-activity soreness should be mild and subside within 12 hours.
- All activities should remain non provocative and low velocity
- Avoid activities where there is a risk of falling or contact to the extremity.
- No swimming, throwing, or contact sports.

Therapeutic Exercise

- No internal rotation ROM restriction, which can be gradually normalized to non-operative shoulder. This should be done through PROM and AROM with appropriate scapular positioning.
- Begin strengthening shoulder flexion in prone position with appropriate scapular positioning. Progress to D1,D2 standing without exceeding 90 degrees of shoulder abduction.
- Can start light weight training limited to 15lbs. No full body weight or bench press (posterior loading).

Cardiovascular Exercise

- Walking, biking, Stairmaster.
- Begin jogging and progress to running towards the end of phase III
- No swimming, throwing, overhead sports

Progression Criteria

- Patient may progress to phase IV if they have met the above goals and are at least 12 weeks post surgery

PHASE IV (MONTHS 3 – 6)

Appointments

- Rehabilitation once every 2-3 weeks

Rehabilitation Goals

- Patient to demonstrate shoulder stability with dynamic, mid-high velocity movements
- Normal 5/5 rotator cuff strength in 90 degrees abduction
- Full multi-plan AROM

Therapeutic Exercise

- Advance strengthening as tolerated: begin with isometrics in 0-90 degrees abduction and progress to light weights (1-2lbs). Incorporate PNF/Dynamic/Functional movements in later progression. Therabands can be used when full ROM is achieved during the exercise.
- Begin sport specific progression that emphasize core and hip strength with functional and dynamic shoulder stabilization
- Examples: medicine ball exercises that incorporate trunk rotation and rotator cuff control. Cable column, dumbbell exercises with shoulder internal rotation and external rotation in 90 degrees abduction. BAPS/balance boards in push up position. Rapid alternating movements in supine D2 diagonal. Closed kinetic chain stabilization with narrow base of support
- Very initial throwing program progression. Should not begin full throwing until 5-6months

- Weight lifting with no bench press. Lifetime restriction with heavy bench press. Work into pushups starting on knees and gradually to full body weight by the end of phase IV.

Cardiovascular Fitness

- Walking, biking, Stairmaster, Running
- Swimming can start at 3 months

Progression Criteria

- Patient may progress to Phase V if they have met the above goals and have no shoulder apprehension or impingement signs.

PHASE V (>6 MONTHS)

Appointments

- Rehabilitation appointments as needed for advanced return to sport

Rehabilitation Goals

- Patient to demonstrate gleno-humeral and scapula-thoracic stability with high velocity movements and changes in direction movements in a sport specific pattern. (swimming, throwing)
- No shoulder apprehension
- Adequate core and hip strength and mobility to eliminate any compensatory stresses to the shoulder
- Work capacity cardiovascular endurance for specific sport or work demands

Precautions

- Progress to sport with caution and take into consideration level of athletic competition
- Avoid posterior shoulder pain with activity; post-activity soreness should be mild and subside within 24 hours

Therapeutic Exercise

- Higher velocity strengthening and control, such as inertial, Plyometrics, and rapid deceleration/eccentric strengthening. Plyometrics should start 2 hand breaths below shoulder height and progress to overhead as tolerated.
- No weight lifting restrictions except for heavy bench press.

Cardiovascular Exercise

- Design to use sport specific energy systems

Progression Criteria

- Patient may return to sport after receiving clearance from Dr. Norberg, Kayla Mork, Physical Therapy, and Athletic Trainer