Phase 1 (0-6 weeks post-op) Immediate Post Surgical Phase

Rehabilitation Goals

Protect the surgical repair & avoid a "stiff" shoulder Adherence to precautions and immobilization

PRECAUTIONS

- <u>NO</u> active use of arm must <u>ALWAYS</u> wear sling/immobilizer, even when sleeping
- Reminder it takes 6-8 wks to form osseous union
- Biceps and Coracobrachialis attachments to the coracoid need to be protected

ROM Guidelines

Avoid gaining ROM too quickly by adhering to the following:

- Weeks 1-3: PROM Flexion 100deg, IR 45deg, ER 25deg, Abduction Tolerance
- Weeks 4-6: PROM Flexion & Abduction Tolerance, IR 45deg at 30deg ABD, ER 45deg

<u>Sling</u>

Sling/immobilizer with abduction pillow is worn for 6 weeks per ortho/PT Sleep with towel under the elbow to prevent shoulder hyperextension/wear sling

<u>Wound</u>

- Post-op dressing remains intact until post-op day #3 (~72 hours after surgery)
- May begin showering after post-op day # 3 (no need to cover incision site)
- **<u>Do NOT</u>** submerge shoulder in tub or pool for 4 weeks
- Suture/staple removal @ 7-10 days per Ortho/PT
- Begin scar massage after incision site sloughs/scar is formed

Rehabilitation

- Note: Exercise prescription is dependent upon the tissue healing process and individual functional readiness in all stages. If any concerns or complications arise regarding the progress for any patient, physical therapy will contact the orthopedic surgeon.
- Start with the following exercises: (10-20 repetitions, 3-4 x daily)

Weeks 1-3

- **Modified Pendulum:** (May be done in the sling.) While supporting the affected arm with the unaffected hand, move the shoulder forward, backward, side to side and in clockwise and counterclockwise directions.
- Elbow, Wrist, & Hand: Perform elbow and wrist flexion, extension, pronation, and supination while holding the shoulder in a neutral position at side. For the hand, use a foam ball, newspaper, or thera-putty to squeeze repetitively.
- **Gentle ("Two Finger") Isometrics:** Use the unaffected hand to provide very light, pain free resistance during shoulder flexion, adduction, extension, and abduction (No rotation).
- Gentle ("Two Finger") Isometrics: add gentle, pain free resistance for IR & ER Shoulder
- PROM: Do not force any painful motion. Flexion and elevation to tolerance

Abduction in the plane of the scapula to tolerance

Internal Rotation (IR) to 45 degrees at 30 degrees of abduction External Rotation (ER) in the plane of the scapula from 0-25 degrees; begin at 30-40 degrees abduction

Weeks 4-6

Shoulder PROM:

- Flexion and elevation to tolerance
- Abduction in the plane of the scapula to tolerance
- IR to 45 degrees at 30 degrees abduction
- ER to 45 deg. Begin at 30-40 degrees of abduction
- Joint Mobilization Grade I & II: Only if limited ROM compared to expectation for this level
- Scapulothoracic Mobilization: Only if limited ROM
- Thoracic spine Mobilization: Only if limited ROM
- Posterior Capsule stretching: Cross body stretch, Sleeper Stretch

Follow-Up

- Physical Therapy: weekly
- Ortho: ~6 wks post-op
- Supervised rehab: 2 x per wk

Documentation

- Precautions, pain level, medications and modalities
- Observation: (incision sites) Signs/symptoms of infection? Site healing well?
- Neurovascular status: Distal pulses, motor and sensation intact?
- Shoulder passive ROM (forward flexion, ER with shoulder at side)



Phase 2 (6-9 weeks post-op) Progressive Phase

Rehabilitation Goals

- PROM: Passive flexion >155deg, ER within 8-10deg of contralateral side at 20deg ABD,
- Passive ER >75deg at 90deg ABD
- AROM: >145deg Flexion
- Phase II exercises without pain or difficulty

PRECAUTIONS

- <u>NO</u> pushups, heavy lifting, or other sports participation
- <u>NO</u> repetitive overhead use of the shoulder

ROM Guidelines

Wks 6-9: PROM Flexion 155deg, ER within 8-10deg contralateral side at 20deg ABD, ER at least 75deg at 90deg ABD, AROM Flexion 145deg

<u>Sling</u>

Wean from wearing sling/immobilizer per ortho/PT guidance

Rehabilitation

- Continue phase I exercises as needed
- Progress to the following exercises and increase intensity gradually when patient is ready (i.e., no increase in shoulder pain or stiffness since the previous exercise session)
- *Note: all strengthening should be done, starting with low weights, high repetitions, and in a painless ROM*



Weeks 6-9

• **Shoulder PROM**: Progress forward flexion, elevation, & abduction in the plane of the scapula to tolerance

IR as tolerated, ER to tolerance; progress to multiple angles of abduction once >35deg at 0-40deg of ABD

- **Supine Active Assisted Shoulder Flexion**: Lie on back with arm down at side and thumb pointed towards the ceiling. Use unaffected hand to grasp the wrist of the affected arm and slowly raise it until a point of mild discomfort (within ranges of motion described above) to patient's tolerance.
- Aerobic Conditioning on Recumbent Bike
- Scapular Retraction & Protraction: Gently "pinch" shoulder blades together. Hold for 5

seconds and relax. Then spread shoulder blades apart. Hold for 5 seconds and relax.

- Rhythmic Stabilization: ER/IR in the scapular plane, flexion/extension, ABD/ADD
- Lower Extremity Weight Lifting: May begin leg & calf press, hamstring curls, hip add/abd
- Shoulder AAROM exercises: Wand, pulley, gentle towel stretch, etc.
- Joint Moblization-Glenohumeral and Scapulothracic Grade I-IV as appropriate
- Shoulder AROM and AAROM exercises: Wand, pulley, towel stretch, sleeper's stretch, etc.
- **Progressive strengthening:** ER & IR with arm at side and with 30deg shoulder ABD(use towel roll), FF & scaption to 60-90°, prone rows at 30/45/90deg ABD, ER sidelying with towel roll (30-50 reps, low resistance 1-3#)

<u>Follow-Up</u>

- Physical Therapy: weekly
- Ortho: ~3 months post-op
- Supervised rehab: 2-3 x per wk as needed

Documentation

- Pain level, medications, modalities
- Shoulder ROM & strength



Phase 3 (10-15 weeks post-op) Strengthening Phase

Rehabilitation Goals

- Normalize strength, endurance, neuromuscular control
- Return to chest level functional activities
- Gradual stress to anterior joint capsule

PRECAUTIONS

- NO participation in contact/collision sports until ~9 months post-op
- Do not overly stress anterior capsule with aggressive overhead activities

Rehabilitation

- Continue phase II exercises as needed
- Progress to the following exercises and increase intensity gradually when patient is ready (i.e., no increase in shoulder pain or stiffness since the previous exercise session)
- Note: all strengthening should be done, starting with low weights, high repetitions, and in a painless ROM
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Weeks 10-15

Warm-up: 5-10 minutes on upper body cycle

Continue A/PROM as needed

Initiate biceps curls with light resistance

Gradually strengthen pec major and minor-avoid excessive stress on anterior capsule Progress subscapularis strengthening with focus on both upper and lower segments

- Push up plus (wall, counter, knees on floor, floor)
- Cross body diagonals with tubing
- IR resistive band at 0, 45, 90deg ABD
- Forward Punch

Follow-Up

PT: 3 weeks Supervised rehabilitation: 2 x per week as needed

Documentation

Pain level & medication



Phase 4 (16-20 weeks post-op) Overhead Activities / Return to Activity Phase

Rehabilitation Goals

- Continue ROM as needed
- Maintain full non-painful AROM
- Return to more strenuous work/recreational activities

Rehabilitation

- Continue phase III exercises as needed
- Progress to the following exercises and increase intensity gradually when patient is ready (i.e., no increase in shoulder pain or stiffness since the previous exercise session)

Weeks 16-20

- · Isotonic strengthening if no compensatory strategies or pain
- Strengthen overhead if ROM and strength below 90deg is Good
- Progressive return to UE wt lifting emphasizing deltoid, latissimus dorsi, pec major (15-25 reps, light weight)
- Push-ups without elbow past 90deg
- Plyometrics if cleared by PT

Follow-Up

- PT: 1 month
- Rehabilitation: 2 x per week as needed

Documentation

- Pain level & medications
- Shoulder ROM & strength

Miscellaneous

• The recommendation is to wait until 6-9 months post-op to return to contact/collision or overhead sports. This time period may be adjusted slightly by the surgeon and therapist according to patient progress.