

## SHOULDER ARTHROSCOPY WITH BIOLOGIC TUBEROPLASTY/SUBACROMIAL BALLOON SPACER REHAB PROTOCOL AND POST-OP INSTRUCTIONS

Shoulder arthroscopy with biologic tuberoplasty/subacromial balloon spacer is a minimally invasive treatment options for certain patients with massive, irreparable rotator cuff tears. The main goal is pain relief and preservation of range of motion/function. There may be adjustments to this protocol depending on certain factors such as additional injuries present and concomitant procedures.

### For Patients: Recovery overview

- a. The first few days following surgery should generally be spent resting/recovering. Keep activity at a minimum during the first few days
- b. Your arm may be numb for 1-3 days following surgery if you had a nerve block. It is normal to continue to experience numbness in your fingertips for several days
- c. **Brace:** wear for the **first 2 weeks** following surgery. Remove the brace for showering and your exercises. Use at night while sleeping. If there is minimal discomfort after 2 weeks you can wean out of the brace as tolerated.
- d. Once the nerve block wears off begin your exercises (3-4x/day). These include Pendulums table slides and elbow and wrist range of motion (see the last page).
- e. **Physical therapy:** Call for your first physical therapy visit **within 1 week** after surgery. You may complete your therapy at the location/facility of your choosing. Call to set up your first appointment as soon as possible.
- f. **Dressing:** Cover your dressing for showering x 3 days. In 3 days you may remove the bandage. Keep any steri-strips in place. Sutures will be removed at your first post-op appointment. After the bandage is removed, you do not need to cover the incisions for showers but do not scrub or soak the incisions. Do no submerge underwater until incisions are fully healed (~3-4 weeks).
- g. **Pain Medication/Ice:** Take pain medication as prescribed. Supplement pain with over the counter Tylenol, Ibuprofen taking as directed on the bottle. Use Ice machine/bags of ice 20-30 minutes every 1-2 hours for the first 3-5 days
- h. **Driving:** There is no conclusive data about when it is safe to return to drive. No driving while on pain medications. Return to driving is highly individualized. You may return to driving when you can take the brace on and off by yourself and feel safe to make evasive maneuvers if necessary.

### For Physical Therapists:

#### General Principles

- Protect biologic graft/implant and allow incorporation onto the greater tuberosity
- Avoid superior humeral head migration early
- Emphasize gradual restoration of motion without overloading the deltoid

- Avoid aggressive strengthening in early phases
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## Phase I – Protection Phase (0–4 Weeks)

### Goals

- Protect graft and tuberosity healing
- Control pain and inflammation
- Prevent stiffness (within protected range)
- Maintain distal joint mobility

### Immobilization

- **Abduction sling/brace**
    - Worn **at all times x 2 weeks**, including sleep
    - Remove for hygiene and exercises
    - Helps reduce superior humeral head migration and tension on biologic graft
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## Range of Motion (ROM)

### Shoulder

- Weeks 0–2:
  - Passive forward elevation: 0–90°
  - Passive ER in scapular plane: 0–20°
  - No active shoulder motion
  - Pendulums, table slides
  - Full range of motion fingers/wrist/elbow immediately
- Weeks 2–4:
  - Passive forward elevation: progress to 120°
  - ER to 30°
  - Supine active forward flexion
  - Can begin gentle active assisted forward flexion if there is minimal discomfort.

### Avoid

- Active abduction
- Internal rotation behind back
- Cross-body adduction

### Lifting Restrictions

- **No lifting > 5 lbs with operative arm**
  - No supporting body weight
  - No pushing/pulling activities
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### Phase II – Early Motion Phase (4–6 Weeks)

#### Goals

- Gradually restore passive and active ROM
- Begin controlled active motion
- Maintain graft protection

#### Brace

- Continue wean from brace for patients still using for comfort
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### Range of Motion

- Passive elevation to 140°
  - ER to 45°
  - Progress Active forward flexion
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### Strengthening

- Begin **submaximal isometrics** at 4 weeks:
    - Deltoid
    - Periscapular muscles
  - No resistance bands yet
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### Lifting Restrictions

- Limit lifting to **10 lbs**
- No overhead lifting

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### Phase III – Progressive Strengthening (6-8 Weeks)

#### Goals

- Restore full active ROM
- Improve deltoid and scapular control
- Prevent superior humeral head migration

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#### ROM

- Progress to full passive ROM as tolerated
- Emphasize controlled eccentric lowering
- Progress Active ROM all planes
- Goal Full ROM 8-10 weeks

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#### Strengthening

- Begin light resistance bands
- Scapular stabilization progression
- Deltoid strengthening (gradual)
- Closed-chain proprioceptive drills

#### Avoid

- Heavy overhead loading
- Sudden dynamic movements

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#### Lifting Restrictions

- Progress to **15 lbs** below shoulder height
- Avoid repetitive overhead lifting

## Phase IV – Advanced Strengthening & Functional Return (8-12 Weeks)

### Goals

- Improve strength and endurance
  - Restore functional overhead mechanics
  - Prepare for work/sport demands
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### Strengthening

- Progressive resistance training
  - Eccentric strengthening
  - Functional movement patterns
  - Light overhead strengthening begins
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### Lifting Restrictions

- Progress gradually to **20 lbs**
  - Overhead lifting introduced gradually after 10-12 weeks
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## Phase V – Return to Activity (3 Months)

### Goals

- Pain-free functional ROM
- Adequate strength for activity demands

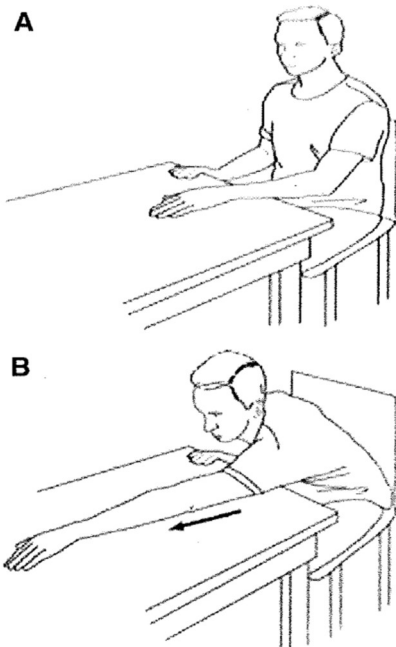


FIGURE 1. Table slide. (A) Starting position. While seated at a table, the patient places the hand of the affected shoulder on a sliding surface (e.g., a magazine that slides over a smooth table surface). (B) Ending position. The patient slides the hand forward, maintaining contact with the table, while the head and chest advance toward the table.

