NOVANT HEALTH

Charlotte Shoulder Institute

Patient Centered. Research Driven. Outcome Maximized.

James R. Romanowski, M.D.

Novant Health Orthopedics and Sports Medicine
2826 Randolph Rd.
Charlotte, NC 28211
704-358-0308 (Office)
704-358-0037 (Fax)
www.charlotteshoulder.com

DISCHARGE INSTRUCTIONS & PHYSICAL THERAPY INSTRUCTIONS FOR OPEN SHOULDER BICEPS TENODESIS

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.

A. 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:

1. **Ice**- Ice controls swelling and discomfort by slowing down the circulation in your shoulder. Place crushed ice in cloth covered plastic bag over your shoulder for no more than 20 minutes, 3 times a day.
2. **Pain Medication-** Take medications as prescribed, but only as often as necessary. Avoid alcohol and driving if you are taking pain medication.
3. **Sling-** A sling has been provided for your comfort and to stabilize your shoulder for proper healing. Wear sling as described below
4. **Driving** – Driving is NOT permitted as long as the sling is necessary.

B. Activities:

1. You are immobilized with a sling for approximately two weeks.
2. Your sling may be removed for gentle range-of-motion (PROM) exercises.
3. Physical therapy will begin approximately 1 week after surgery. Make an appointment with a therapist of your choice for this period of time. You will

be given a prescription and instructions for therapy at your 1st post op visit. Please take these with you to your first therapy visit.

4. Athletic activities such as throwing, lifting, swimming, bicycling, jogging, running, and stop-and-go sports should be avoided until cleared by Dr. Romanowski.

C. Wound Care:

1. Keep the dressing on, clean and dry.
2. Leave your dressing in place until your 1st post op follow up visit. If it falls off, apply band-aids.
3. You may shower the first day after surgery with the dressings in place.
4. Bathing, swimming, and soaking should be avoided for two weeks after your surgery.

D. 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.

C. Call your physician if:

1. Pain persists or worsens in the first few days after surgery.
2. 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.
3. Temperature elevation greater than 101°.
4. Pain, swelling, or redness in your arm or hand.
5. Numbness or weakness in your arm or hand.
6. Chest pain or difficulty breathing.

D. Return to the office

Your first return to the office should be within the first 1-2 weeks after your surgery. Call Dr. Romanowski's office to make your first postoperative appointment.

REHABILITATION PROTOCOL FOR OPEN SHOULDER BICEPS TENODESIS

The intent of this protocol is to provide the clinician with a guideline for the post-operative rehabilitation course of a patient that has undergone an open biceps tenodesis. It is not intended to be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam/findings, individual progress, and/or the presence of post-operative complications. If a clinician requires assistance in the progression of a post-operative patient they should consult with the referring surgeon.

Phase I – Passive Range of Motion Phase (starts approximately post op weeks 1- 2)

Goals:
- Minimize shoulder pain and inflammatory response
- Achieve gradual restoration of passive range of motion (PROM)
- Enhance/ensure adequate scapular function

Precautions/Patient Education:
- No active range of motion (AROM) of the elbow
- No excessive external rotation range of motion (ROM) / stretching. Stop when you feel the first end feel.
- Use of a sling to minimize activity of biceps
- Ace wrap upper forearm as needed for swelling control
- No lifting of objects with operative shoulder
- Keep incisions clean and dry
- No friction massage to the proximal biceps tendon / tenodesis site
- Patient education regarding limited use of upper extremity despite the potential lack of or minimal pain or other symptoms

Activity:
- Shoulder pendulum hang exercise
- PROM elbow flexion/extension and forearm supination/pronation
- AROM wrist/hand
- Begin shoulder PROM all planes to tolerance /do not force any painful motion.
- Scapular retraction and clock exercises for scapula mobility progressed to scapular isometric exercises
- Handball squeezes
- Sleep with sling as needed supporting operative shoulder, place a towel under the elbow to prevent shoulder hyperextension
- Frequent cryotherapy for pain and inflammation
- Patient education regarding postural awareness, joint protection, positioning, hygiene, etc.
- May return to computer based work

Milestones to progress to phase II:
- Appropriate healing of the surgical incision
- Full PROM of shoulder and elbow
- Completion of phase I activities without pain or difficulty

Phase II – Active Range of Motion Phase (starts approximately post op week 4)

Goals:
- Minimize shoulder pain and inflammatory response
- Achieve gradual restoration of AROM
- Begin light waist level functional activities
- Wean out of sling by the end of the 2-3 postoperative week
- Return to light computer work

Precautions:
- No lifting with affected upper extremity
- No friction massage to the proximal biceps tendon / tenodesis site

Activity:
- Begin gentle scar massage and use of scar pad for anterior axillary incision
- Progress shoulder PROM to active assisted range of motion (AAROM) and AROM all planes to tolerance
- Lawn chair progression for shoulder
- Active elbow flexion/extension and forearm supination/pronation (No resistance)
- Glenohumeral, scapulothoracic, and trunk joint mobilizations as indicated (Grade I - IV) when ROM is significantly less than expected. Mobilizations should be done in directions of limited motion and only until adequate ROM is gained.
- Begin incorporating posterior capsular stretching as indicated
- Cross body adduction stretch
- Side lying internal rotation stretch (sleeper stretch)
- Continued Cryotherapy for pain and inflammation
- Continued patient education: posture, joint protection, positioning, hygiene, etc.

Milestones to progress to phase III:
- Restore full AROM of shoulder and elbow
- Appropriate scapular posture at rest and dynamic scapular control with ROM and functional activities
- Completion of phase II activities without pain or difficulty

Phase III - Strengthening Phase (starts approximately post op week 6-8)

Goals:
- Normalize strength, endurance, neuromuscular control
- Return to chest level full functional activities

Precautions:
- Do not perform strengthening or functional activities in a given plane until

the patient has near full ROM and strength in that plane of movement
- Patient education regarding a gradual increase to shoulder activities

Activity:
- Continue A/PROM of shoulder and elbow as needed/indicated
- Initiate biceps curls with light resistance, progress as tolerated
- Initiate resisted supination/pronation
- Begin rhythmic stabilization drills
- External rotation (ER) / Internal Rotation (IR) in the scapular plane
- Flexion/extension and abduction/adduction at various angles of elevation
- Initiate balanced strengthening program
- Initially in low dynamic positions
- Gain muscular endurance with high repetition of 30-50, low resistance 1-3 lbs) Exercises should be progressive in terms of muscle demand / intensity, shoulder elevation, and stress on the anterior joint capsule
- Nearly full elevation in the scapula plane should be achieved before beginning elevation in other planes
- All activities should be pain free and without compensatory/substitution patterns
- Exercises should consist of both open and closed chain activities
- No heavy lifting should be performed at this time
- Initiate full can scapular plane raises with good mechanics
- Initiate ER strengthening using exercise tubing at 30° of abduction (use towel roll)
- Initiate sidelying ER with towel roll
- Initiate manual resistance ER supine in scapular plane (light resistance)
- Initiate prone rowing at 30/45/90 degrees of abduction to neutral arm position
- Begin subscapularis strengthening to focus on both upper and lower segments
- Push up plus (wall, counter, knees on the floor, floor)
- Cross body diagonals with resistive tubing
- IR resistive band (0, 45, 90 degrees of abduction
- Forward punch
- Continued cryotherapy for pain and inflammation as needed

Milestones to progress to phase IV:
- Appropriate rotator cuff and scapular muscular performance for chest level activities
- Completion of phase III activities without pain or difficulty

Phase IV – Advanced Strengthening Phase (starts approximately post op week 10)

Goals:
- Continue stretching and PROM as needed/indicated
- Maintain full non-painful AROM
- Return to full strenuous work activities

- Return to full recreational activities

Precautions:

- Avoid excessive anterior capsule stress
- With weight lifting, avoid military press and wide grip bench press.

Activity:

- Continue all exercises listed above
- Progress isotonic strengthening if patient demonstrates no compensatory strategies, is not painful, and has no residual soreness
- Strengthening overhead if ROM and strength below 90 degree elevation is good
- Continue shoulder stretching and strengthening at least four times per week
- Progressive return to upper extremity weight lifting program emphasizing the larger, primary upper extremity muscles (deltoid, latissimus dorsi, pectoralis major)
- Start with relatively light weight and high repetitions (15-25)
- May initiate pre injury level activities/ vigorous sports if appropriate / cleared by Dr. Romanowski.

Milestones to return to overhead work and sport activities:

- Clearance from Dr. Romanowski.
- No complaints of pain
- Adequate ROM, strength and endurance of rotator cuff and scapular musculature for task completion
- Compliance with continued home exercise program

Adapted from Brigham and Women's Hospital. Department of Physical Therapy.