This rehabilitation program is designed to return the individual to their full activities as quickly and safely as possible, following biceps tenodesis. Modifications to this guideline may be necessary dependent on physician specific instruction or other procedures performed. This evidence-based guideline is criterion-based; time frames and visits in each phase will vary depending on many factors. The therapist may modify the program appropriately depending on the individual’s goals for activity following this surgery.

This guideline is intended to provide the treating clinician a frame of reference for rehabilitation. It is not intended to substitute clinical judgment regarding the patient’s post-operative care based on exam/treatment findings, individual progress, and/or the presence of concomitant procedures or post-operative complications. If the clinician should have questions regarding post-operative progression, they should contact the referring physician.

**Precautions:**

* Immobilizer will be used for approximately 4 weeks per the surgeon’s instruction. Okay to remove for treatment/exercise.
* If patient has a concomitant injury/repair treatment will vary- consult with surgeon.

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| --- | --- | --- |
| **Phase** | **Suggested Interventions** | **Goals/Milestones for Progression** |
| **Phase I**Weeks 0-2  | Specific Instructions: * Use immobilizer all the time except for performing exercises and hygiene
* PT Ordered per physician discretion

Suggested Treatments: 1. Shoulder Pendulums
2. AROM wrist and hand
3. PROM elbow flexion/extension, pronation/supination
4. PROM shoulder all planes as tolerated
5. Scapular retractions
* squeeze exercise ball as much as possible
* Cervical spine stretching: Upper Trapezius, Levator Scapulae, Scalenes
* Thoracic Spine and costovertebral joint mobilizations
* Scapular glides
* Posture training
* Modalities for control of pain and inflammation
* Maintain cardiovascular health using walking, exercise bike
 | Goals of Phase: 1. Initiate PROM
2. Pain control
3. Edema control

Criteria to Advance to Next Phase: 1. Healing as expected |
| **Phase II**Weeks 2-4  | Suggested Treatments:* Shoulder:
* Joint mobilizations
* Progress PROM of shoulder
* Begin gentle scar mobilization
* Continue exercises from phase I

Maintain cardiovascular health using walking, exercise bike | Goals of Phase: 1. Pain control
2. Edema control

Criteria to Advance to Next Phase: 1. Healing as expected |
| **Phase III**Weeks 4-6  | Suggested Therapy: * Continue joint mobilizations where restricted (PA/Inferior Add in neutral, mild ER, and mild IR)
* PROM Continues with goal of full ROM
* Table slides in the scapular plane
* Shoulder Pulleys (Normal Scapulohumeral Rhythm must exist to decrease Impingement)
* AAROM of elbow flexion/extension, pronation/supination
* Dowel exercises
* Elbow/hand:
	+ Sub-max isometrics elbow flex/ext in neutral shoulder position
	+ initiate isometric exercises sub-maximal contraction
* Maintain cardiovascular health using walking, exercise bike
* LE and trunk exercises to be initiated (no bouncing)
 | Goals of Phase: 1. Pain control
2. Edema control
3. Improve proper physiologic movement
4. Full PROM

Criteria to Advance to Next Phase: 1. Full PROM
 |
| **Phase IV** Weeks 6-8  | Suggested Treatments:* Continue exercises from previous phase
* Add wall slides as tolerated in the scapular plane
* UBE (elbow below shoulder height with minimal reach and resistance)
* Initiate biceps strengthening, beginning with light resistance
* Rhythmic stabilization exercises for the scapular muscles
* Begin closed chain strengthening as tolerated
 | Goals of Phase:1. Gradually restore full AROM
2. Preserve the integrity of the surgical repair
3. Restore muscular strength and balance

Criteria to Advance to Next Phase: 1. Full non painful ROM
2. Good stability
3. Muscular strength 3/5 or better
4. No pain or tenderness
 |
| **Phase V**weeks 8-10 | Suggested Treatments: Continue previous phase.* Full ROM is allowed for PROM, AAROM, and AROM. Focus on propertechnique and progress as tolerated.
* Focus is on quality uncompensated movement
* Progress stabilization exercises to standing for the scapular muscles
* Prone scapular and shoulder strengthening (I’s, Y’s, and T’s).
* Weighted bicep curls and tricep pushdowns as tolerated
 | Goals of Phase:1. Establish and maintain full ROM
2. Improve muscular strength, power, and endurance
3. Gradually initiate functional exercises

Criteria to Advance to Next Phase: 1. Full non painful ROM
2. Satisfactory static stability
 |
| **Phase VI**Weeks 10-12 | Suggested Treatments: * Avoid excessive anterior capsule stress
* May begin weightlifting overhead, but avoid military press and wide grip bench press
* Body blade in all planes
* Add resisted PNF movements D1 and D2 flexion/Extension
* Maintain cardiovascular health using walking, exercise bike, consider light jogging if indicated.
 | Goals of phase:1. Enhanced muscular strength, power, and endurance
2. Progress functional activities
3. Maintained shoulder stability
4. Begin return to sport specific strengthening
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| **Phase VII**Weeks 12-16 | * Begin plyometric exercises
* Add gym exercises
* Initiate sport specific training/job related tasks
* Interval throwing program
* Swimming/tennis/lifting/carrying
 | Goals of Phase:1. Muscular strength 75-80% of contralateral side
2. No pain or tenderness

Suggested Criteria for Discharge: 1. Preserve the integrity of the surgical repair
2. Restore muscular strength and balance
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