

ARTHROSCOPIC BICEP TENODESIS

Phase I – Protective Phase (Weeks 0 – 6)

Goals:

- Maintain integrity of repair
- Gradual increase in PROM
- Gradual increase in shoulder strength
- Decrease pain and inflammation

Precautions:

- No lifting of objects
- No excessive shoulder extension, stretching or sudden movements
- No supporting of body weight on hands
- No active bicep flexion x 6weeks

Weeks 0 – 2:

- Sling or brace (determined by physician) for 4-6 weeks
- Perform elbow/hand/wrist ROM exercises (elbow extension with gravity; active-assisted elbow flexion)
- Perform PROM to tolerance:
 - Flexion
 - ER/IR in scapular plane
- AAROM:
 - Pendulum exercises
 - Flexion to
 - ER/IR to in scapular plane
- Strengthening:
 - Rhythmic Stabilization drills
 - Flexion/Extension at 90-100° of flexion in supine
 - ER/IR in scapular plane
 - Sub-maximal/pain-free isometrics (all with bent elbow):
 - Abduction
 - ER/IR
 - Extension
- Pain control modalities

Weeks 3 – 4:

- PROM to tolerance (full PROM by 4 – 5 weeks)
- AAROM:
 - Flexion to
 - ER/IR to tolerance in scapular plane
 - ER/IR to 45° at 90°abduction
 - Active assisted elbow flexion against gravity (week4)
- Strengthening:
 - Tubing ER @ 0° abduction
 - Isotonics (light):
 - Prone rows to neutral arm position
 - Prone horizontal abduction

Weeks 5 – 6:

- Discontinue brace or sling;
- Continue PROM and stretching to maintain full PROM
- AAROM:
 - Flexion to tolerance
 - ER/IR to tolerance in scapular plane
 - ER/IR to tolerance at 90° abduction
- AROM:
 - Flexion to 90°
 - Full elbow flexion against gravity (week 6)
- Strengthening:
 - Continue tubing ER @ 0° abduction
 - Continue isotonics (light):
 - Prone rows to neutral arm position
 - Prone horizontal abduction
 - Bicep flexion
- Upper extremity cycle

Phase II – Intermediate Phase (Weeks 7 – 12)

Goals:

- Full, non-painful A/PROM (week 10)
- Gradual improvement of strength and power
- Gradual return to light functional activities

Weeks 7 – 10:

- Maintain full PROM and progress to full AAROM
 - Strengthening:
 - Continue/progress rhythmic stabilization drills
 - Continue tubing ER at 0° abduction working on endurance
 - Tubing scapular strengthening to neutral working on endurance
 - Isotonics (gradually progress resistance):
 - Flexion to 90⁰ (no resistance until AROM is without hiking)
 - ER/IR in side lying
 - Prone rows
 - Prone horizontal abduction
 - Triceps
 - Begin light resistance bicep (week 8): 1-2 lbs

Weeks 10 – 12:

- Maintain full AAROM and progress to full AROM
- Strengthening:
 - Continue isotonic/tubing and stabilization strengthening
 - Closed chain stabilization drills

Phase III – Advanced Strengthening Phase (Weeks 13 – 20)

Goals:

- Maintain full, non-painful ROM
- Improve shoulder complex strength and neuromuscular control
- Gradual return to functional activities

Weeks 13 – 20:

- Maintain PROM, AAROM and AROM
- Initiate self capsular stretches if shoulder is tight
- Begin advancement of bicep resistance to tolerance
- Strengthening:
 - High-speed isokinetics for ER/IR in neutral
 - Begin general shoulder strengthening with precautions:
 - Latissimus pulls with narrow grip and arms in front of body
 - Chest press with light dumbbells keeping elbows anterior to shoulder
 - Machine rows
 - Military press with light dumbbells and arms in front only
- Plyometric program (2 handed → 1handed) at 16 weeks

Phase IV – Return to Activity Phase (Weeks 21 – 28)

Goals:

- Maintain shoulder ROM, strength and neuromuscular control
- Gradual return to recreational sport activities
- Gradual return to strenuous occupational activities

Weeks 21 – 24:

- Continue flexibility, strength, stabilization and plyometric exercises
- Isokinetic strength test for ER/IR in neutral at 180°/ sec and 300°/sec
- Initiate interval sport program

Weeks 24 – 28:

- Continue flexibility, strength, stabilization and plyometric exercises
- Continue with interval sport program and progress to return to play when released

Criteria for return to play:

- Physician approval
- Satisfactory ROM
- Satisfactory strength test
- Satisfactory clinical exam
- Satisfactory completion of interval sport program