

# BICEPS TENODESIS

## Post-Operative Physical Therapy Protocol



SCAN FOR THE  
ONLINE VERSION



**Stanford**  
MEDICINE

Dear Colleague,

I appreciate your partnership in the rehabilitation of this very special patient of ours. I have instructed the patient that you will be using this protocol. My belief is that the biggest predictor of success is what the patient does at home and consistently. **They should view you not just as a therapist but as a highly educated and skilled teacher** and the patient *must* be an active participant in the rehab process.

To facilitate this, I have included a copy of the rehab protocols I would like the patient to focus on at each time point in the rehab process. Please assist me by encouraging and teaching our mutual patient their home exercises as well.

With your help and the active participation of our patient, I know we can have another fantastic shoulder.

Please do not hesitate to reach out directly to me and my team with any questions at any time.

Respectfully,



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|                                         | WEEKS 1-4                                                      | WEEKS 4-12                                                  | MONTHS 3-12                                                  |
|-----------------------------------------|----------------------------------------------------------------|-------------------------------------------------------------|--------------------------------------------------------------|
| <b>Sling</b>                            | First 4 weeks                                                  | Discontinue                                                 |                                                              |
| <b>Shoulder motion</b>                  | PROM → AROM<br><i>Without restrictions; goal full AROM</i>     | Full                                                        | Full                                                         |
| <b>Elbow flexion and extension</b>      | PROM → AAROM → AROM<br><i>No resistance; goal full passive</i> | AROM all directions<br><i>Passive stretch at end ranges</i> | Full                                                         |
| <b>Forearm pronation and supination</b> | Encouraged<br><i>No resistance</i>                             | AROM                                                        | Full                                                         |
| <b>Resisted motion</b>                  | None                                                           | From 6 weeks<br><i>Isometrics at side → bands; scapular</i> | 3 times a week<br><i>Eccentrics, plyometrics at 12 weeks</i> |

### SUMMARY

|                        |                                                                                                                                                                                                                                                                   |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Sling</b>           | First 4 weeks.                                                                                                                                                                                                                                                    |
| <b>Motion</b>          | Shoulder PROM → AROM without restrictions from the start. Elbow PROM → AAROM → AROM without resistance for 4 weeks, so the tendon can heal into its new insertion site on the humerus without being stressed.                                                     |
| <b>Strengthening</b>   | No resisted motions until 4 weeks. Light isometrics with the arm at the side for the rotator cuff and deltoid at 6 weeks, advancing to bands; scapular strengthening at 6 weeks. Eccentrics, plyometrics, proprioception, and closed chain exercises at 12 weeks. |
| <b>Return to sport</b> | Sport-related rehabilitation at 3 months. Throwing and swimming at 3 months. Throwing from the mound at 4½ months. Collision sports at 6 months.                                                                                                                  |

*As tolerated means pain during exercise no more than 2/10 above baseline. Avoid pushing into pain.*

**WEEKS 1–4**

- Sling for the first 4 weeks.
- **PROM → AAROM → AROM of the elbow without resistance.** This gives the biceps tendon time to heal into its new insertion site on the humerus without being stressed.
- Encourage pronation and supination without resistance.
- Grip strengthening.
- Maintain shoulder motion by progressing PROM → AROM without restrictions.
- ROM goals: full passive flexion and extension at the elbow; full shoulder AROM.
- **No resisted motions until 4 weeks post-op.**

**WEEKS 4–12**

- Discontinue the sling.
- Begin AROM for the elbow in all directions with passive stretching at end ranges to maintain or increase biceps and elbow flexibility and ROM.
- At 6 weeks, begin light isometrics with the arm at the side for the rotator cuff and deltoid; can advance to bands as tolerated.
- At 6 weeks, begin scapular strengthening.

**MONTHS 3–12**

- Strengthen only 3 times a week to avoid rotator cuff tendinitis.
- Begin upper body ergometer.
- Begin eccentrically resisted motions, plyometrics (weighted ball toss), proprioception (body blade), and closed chain exercises at 12 weeks.
- Begin sport-related rehabilitation at 3 months, including advanced conditioning.
- Return to throwing and begin swimming at 3 months.
- Throw from the pitcher's mound at 4½ months.
- Collision sports at 6 months.

**CRITERIA TO DISCHARGE FROM THERAPY**

- Full active ROM compared with the uninvolved side.
- Pain-free activities of daily living.
- Shoulder strength above 80% of the uninvolved side by handheld dynamometer.

**WEEK-BY-WEEK PROGRESSION**

| EXERCISE                                                       | 1 | 2 | 3 | 4<br>(1 mo) | 5 | 6 | 7 | 8<br>(2 mo) | 9 | 10 | 12<br>(3 mo) | 16 | 20 | 24<br>(6 mo) |
|----------------------------------------------------------------|---|---|---|-------------|---|---|---|-------------|---|----|--------------|----|----|--------------|
| <b>Initial Exercises</b>                                       |   |   |   |             |   |   |   |             |   |    |              |    |    |              |
| Home exercises until PT starts (pendulums, elbow, wrist, hand) |   |   |   |             |   |   |   |             |   |    |              |    |    |              |
| Sling                                                          |   |   |   |             |   |   |   |             |   |    |              |    |    |              |
| Elbow PROM → AAROM → AROM, no resistance                       |   |   |   |             |   |   |   |             |   |    |              |    |    |              |
| Pronation and supination, no resistance                        |   |   |   |             |   |   |   |             |   |    |              |    |    |              |
| Grip strengthening                                             |   |   |   |             |   |   |   |             |   |    |              |    |    |              |
| Shoulder PROM → AROM without restrictions                      |   |   |   |             |   |   |   |             |   |    |              |    |    |              |
| <b>Advanced Exercises</b>                                      |   |   |   |             |   |   |   |             |   |    |              |    |    |              |
| Elbow AROM all directions, end-range stretching                |   |   |   |             |   |   |   |             |   |    |              |    |    |              |
| Light isometrics at side, advance to bands                     |   |   |   |             |   |   |   |             |   |    |              |    |    |              |
| Scapular strengthening                                         |   |   |   |             |   |   |   |             |   |    |              |    |    |              |
| Strengthening 3 times a week                                   |   |   |   |             |   |   |   |             |   |    |              |    |    |              |
| Upper body ergometer                                           |   |   |   |             |   |   |   |             |   |    |              |    |    |              |
| Eccentrics, plyometrics, proprioception, closed chain          |   |   |   |             |   |   |   |             |   |    |              |    |    |              |
| Sport-related rehabilitation                                   |   |   |   |             |   |   |   |             |   |    |              |    |    |              |
| <b>High-Level Activities</b>                                   |   |   |   |             |   |   |   |             |   |    |              |    |    |              |
| Throwing and swimming at 3 months                              |   |   |   |             |   |   |   |             |   |    |              |    |    |              |
| Throwing from the mound at 4½ months                           |   |   |   |             |   |   |   |             |   |    |              |    |    |              |
| Collision sports at 6 months                                   |   |   |   |             |   |   |   |             |   |    |              |    |    |              |

No resisted motions until week 4. Elbow motion without resistance until week 4.

This protocol is a general guideline and does not replace the clinical judgment of the treating therapist and surgeon. Please contact our office with any questions.