

Distal Biceps Tendon Repair Rehabilitation Protocol

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PHASE I: 1-3 WEEKS

- For the first post op week, the patient is in a posterior splint that is not to be removed. Beyond that point, the patient wears a removable posterior splint or a hinged elbow brace locked at 90 degrees.
- This brace is removed or unlocked for the exercises as described here.

Clinical Goals

- Elbow ROM from 30 degrees of extension to 130 degrees of flexion
- Maintain minimal swelling and soft tissue healing
- Achieve full forearm supination and pronation

Exercises

- Patient should perform **passive** ROM exercises from 30 degrees of extension to 130 degrees of flexion 5-6 times per day for 25 repetitions.
- Apply ice after exercise sessions.
- A sling or “cuff and collar” may be used for the splint or hinged brace respectively. Shoulder ROM exercises are encouraged.

PHASE II: 3-6 WEEKS

Clinical Goals

- Full elbow and forearm ROM by 6 weeks.
- Scar management

Exercises

- Week 3
 - **Active** extension limit changed to 20 degrees. **Passive** flexion may be increases to full flexion as tolerated. Brace is worn at all times except when exercising or bathing.
 - Scar massage 3-4 times per day.
 - Active wrist flexion / extension.
 - Active ROM of hand in neutral position.
 - Supination / pronation through pain-free range.
- Week 4
 - **Active** extension limit changed to 10 degrees.
 - Continue same exercises.
 - Putty may be used 3 times per day to improve grip strength.
 - Ladder with arm supported by unaffected extremity.
 - Gentle pulley while limiting elbow extension to -10 degrees.
- Week 5
 - Full **active** extension is permitted.
 - Brace is worn for full 6 weeks.
 - Supine scapula stabilization with **no weight**.
 - Alphabet door / clockwise / counterclockwise circles with ball.
- Week 6
 - At the end of 6 weeks, the brace may be discontinued.
 - Passive elbow extension exercises may be started if needed.
 - Light strengthening exercises are started with light tubing or 1-kg weights for elbow flexion, extension, forearm rotation and wrist flexion and extension.
 - Shoulder Theraband strengthening exercises are started.
 - Supine scapula stabilization with 1kg weight.
 - Ball toss / trampoline chest pass 1kg weight.
 - Ice after strengthening exercises.

PHASE III: 6 WEEKS TO 6 MONTHS

Clinical Goals

- The strengthening program is gradually increased so that the patient is using full weights by 3 months. It may be as long as 6 months before a patient returns to heavy work.

Exercises

- Elbow ROM exercises if ROM is limited.
- Strengthening exercises to wrist, forearm, and possibly shoulder, depending on sport and/or work requirements.

ALLOGRAFT RECONSTRUCTION

- This program is delayed when allograft is used.
- Patient is placed in a posterior splint with the elbow at 90 degrees of flexion and forearm in neutral rotation for ~ 7days.
- **At 7 days post op:**
 - Splint is removed and replaced with a removable posterior splint or a hinged elbow brace locked at 90 degrees.
 - **Passive** forward flexion is allowed (90 – 150 degrees). Full flexion is permitted based on pain.
 - **Passive** exercises are repeated 2 times per day, 25 repetitions.
 - **Passive** extension is allowed to 30 degrees from the first week after surgery.
- **Weeks 3-6**
 - **Passive assisted** motion is begun.
 - **Avoid** full extension until after 6 weeks.
- **Weeks 6-12**
 - Active motion for activities of daily living allowed.
- **3-6 Months**
 - Activity as tolerated progress