

Distal Triceps Repair

Physical Therapy Protocol · Flexion-Block Progression (Mirror of Distal Biceps Precautions)

Based on the Ohio State University Wexner Medical Center clinical practice guideline for distal triceps repair and the University Orthopedics (Brown University-affiliated) post-operative protocol. Precautions mirror a distal biceps repair in reverse: active and resisted elbow extension are protected while flexion is advanced gradually to avoid tensioning the repair.



AT A GLANCE

TIMELINE	6 months; no active extension for 6 weeks, no resisted extension or pressing for 12 weeks
IMMOBILIZATION	Splint in relative extension (~20–60° flexion per surgeon), then hinged brace with graded flexion limits; brace discontinued weeks 6–7
KEY MILESTONES	Flexion advanced past 90° after week 4 · active extension without resistance from week 6 · resisted extension from week 12
RETURN TO ACTIVITY	Push-up progression after 12 weeks; return to sport at 5–6 months at the earliest with 5/5 triceps strength

KEY PRECAUTIONS

- No active elbow extension for 6 weeks and no resisted elbow extension, pressing, or shoulder extension/rowing for 12 weeks — gravity-assisted or passive extension only in the early phases.
- Advance elbow flexion gradually (limited to ~90° for the first 4 weeks); aggressive flexion stretch tensions the repair.
- Limit shoulder flexion to 90° for the first 4 weeks to avoid tension through the long head of the triceps.
- No weight bearing through the surgical extremity for 12 weeks.

PHASED REHABILITATION

PHASE 1 — PROTECTION		Weeks 0–2
GOALS	• Protect the repair • Control pain and edema • Maintain hand, wrist, and shoulder mobility within limits	
INTERVENTIONS	• Splint/brace in relative extension per surgeon (OSU: flexion limited to ~20° in brace; other protocols splint at up to 60°) • Hinged brace with sling support worn except for hygiene and exercises • No active elbow extension; elbow moved passively/therapist-guided within brace limits • AROM wrist and hand; gripping; edema management and cryotherapy • Shoulder PROM/AROM with flexion limited to 90°; scapular setting	
CRITERIA TO ADVANCE	• Minimal edema • Repair protection maintained (no active extension) • Independent with brace and precautions	

PHASE 2 — PROTECTED MOTION (FLEXION-BLOCK PROGRESSION)		Weeks 2–6
GOALS	• Gradually restore elbow flexion and passive extension • Maintain shoulder girdle function without loading the triceps	
INTERVENTIONS	• Progress brace flexion allowance per protocol; keep active-assisted flexion ≤90° until week 4, then progress toward full flexion • Passive/self-assisted elbow extension (gravity-assisted); no active extension for 6 weeks • Continue shoulder flexion limit of 90° through week 4, then progress shoulder AROM • Submaximal shoulder isometrics at 25–50% effort, pain-free (weeks 4–6); avoid shoulder extension/rows • Forearm pronation/supination AROM; continue distal AROM	
CRITERIA TO ADVANCE	• Full or near-full elbow flexion by week 6 • Pain-free full shoulder AROM with good scapular control • No extensor lag worsening or repair-site pain	

PHASE 3 — ACTIVE EXTENSION & EARLY STRENGTH		Weeks 6–12
GOALS	• Restore active elbow extension without resistance • Initiate graded triceps activation • Full elbow AROM	
INTERVENTIONS	• Discontinue brace at weeks 6–7 • Initiate active elbow extension without resistance (gravity only); no eccentric triceps activity weeks 6–8 • Weeks 8–12: light triceps isometrics at 25–50% effort; pain-free eccentric activity permitted • Elbow flexion/extension and pronation/supination AROM to full • Scapular and rotator cuff strengthening avoiding pressing and rows until week 12 • Conditioning: stationary bike, light jogging; no weight bearing through the arm	
CRITERIA TO ADVANCE	• Full elbow AROM including terminal extension • Pain-free triceps isometrics • No pressing/resisted extension before week 12	

PHASE 4 — PROGRESSIVE STRENGTHENING & RETURN TO ACTIVITY		Weeks 12–24
GOALS	• Restore triceps strength to 5/5 • Return to pressing, work, and sport	
INTERVENTIONS	• Progressive resisted elbow extension: bands/tubing progressing to weights • Push-up progression, limiting elbow flexion to 45° initially and deepening gradually • Progressive gradual increase in resistance through 6 months; reintroduce rows and pressing • Work- or sport-specific training	
CRITERIA TO ADVANCE	• 5/5 MMT triceps strength • Pain-free dynamic pushing activities • Return to sport at 5–6 months at the earliest, with surgeon clearance • Full unrestricted activity ~6 months	

GUIDING PRINCIPLES

This protocol follows criterion-based progression over rigid time-based advancement; phased rehabilitation balancing tissue healing with controlled stress application; objective milestones (ROM, strength LSI, functional testing) to guide phase transitions; individualization based on surgical findings, tissue quality, and patient factors; and ongoing surgeon–therapist communication throughout recovery.

REFERENCES

1. Ohio State University Wexner Medical Center Sports Medicine. Distal Triceps Repair Clinical Practice Guideline. <https://wexnermedical.osu.edu/-/media/files/wexnermedical/patient-care/healthcare-services/sports-medicine/education/medical-professionals/shoulder-and-elbow/distaltricepsrepair.pdf>
2. University Orthopedics (Brown University-affiliated), Rhode Island. Distal Triceps Repair Post-op Protocol. <https://universityorthopedics.com/assets/jpeg/shoulder-ankle-rhode-island-physical-therapy/Distal-Triceps%20Repair-Post-op-Protocol.pdf>

For clinical use by licensed physical therapists treating patients of Robert Pettit, MD. This document is a rehabilitation guideline, not a substitute for clinical judgment. Progression must be individualized based on intraoperative findings, tissue quality, and patient response. Scan the QR code for the current version of this protocol.