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REHABILITATION PROTOCOL

Posterior Tibial Tendon Bridle Transfer

Postoperative Physical Therapy Protocol — Foot Drop

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> This protocol is a general guideline and does not replace individualized medical advice. Timelines vary with the procedure performed, healing, and individual factors. Always follow the specific instructions from your surgeon and physical therapist, which take precedence over this document.

Overview

Diagnosis: Foot drop status post posterior tibial tendon Bridle transfer

Frequency: 2 to 3 times per week unless otherwise specified

Phase 1: Protection and Immobilization

0–6 Weeks

GOAL Protect tendon transfer, prevent elongation, control swelling.

IMMOBILIZATION & ACTIVITY

- Immobilization in splint or cast with foot in neutral to slight dorsiflexion
- Non-weight bearing with crutches or scooter
- Elevation to control swelling
- **No ankle range of motion**
- Encourage toe range of motion
- Maintain knee and hip motion

PRECAUTIONS

- Avoid any active ankle motion
- Avoid plantarflexion and inversion

Phase 2: Protected Mobilization

6–10 Weeks

GOAL Initiate controlled motion and gradual weight bearing.

INTERVENTIONS

- Transition to CAM boot
- Progress weight bearing as tolerated over 2 to 4 weeks
- Begin passive and active-assisted ankle range of motion
- Emphasize dorsiflexion
- Avoid aggressive plantarflexion stretching
- Initiate gentle isometric activation without resistance
- Begin scar mobilization when incision healed

PRECAUTIONS

- Avoid resisted strengthening
- Avoid inversion and plantarflexion bias

Phase 3: Motor Re-education and Early Strengthening

10–16 Weeks

GOAL Retrain tendon function as a dorsiflexor, normalize gait.

INTERVENTIONS

- Transition from boot to ankle brace
- Full weight bearing in brace
- Begin active dorsiflexion exercises
- Use visual and tactile cueing to promote correct muscle activation
- Initiate light resisted dorsiflexion with bands
- Consider neuromuscular electrical stimulation to assist activation
- Begin gait training with focus on heel strike and foot clearance
- Initiate balance and proprioception exercises

PRECAUTIONS

- Avoid compensation with inversion or plantarflexion
- Focus on controlled, isolated dorsiflexion

Phase 4: Progressive Strengthening and Function

4–6 Months

GOAL Improve strength, endurance, and functional mobility.

INTERVENTIONS

- Progress resisted dorsiflexion and eversion strengthening
- Initiate closed-chain strengthening exercises
- Advance balance training to single limb activities
- Begin low-impact cardiovascular activity
- Continue gait training to normalize mechanics
- Initiate calf strengthening

Phase 5: Return to Activity

6–9 Months

GOAL Return to higher level activity and sport as appropriate.

INTERVENTIONS

- Progress to jogging and running as tolerated
- Initiate agility and sport-specific training
- Gradual return to full activity based on strength and function
- Wean brace as tolerated

Additional Considerations

THROUGHOUT REHABILITATION

- Emphasize neuromuscular retraining throughout rehabilitation
- Focus on converting posterior tibial tendon function to dorsiflexion
- Avoid reinforcing preoperative motor patterns
- Functional recovery may lag behind structural healing

FOLLOW UP

- Routine follow up as scheduled
- Adjust therapy progression based on clinical exam and patient progress