Total Ankle Replacement

Purpose:
This guideline is designed to return the individual to their full activities as quickly and safely as possible, following a Total Ankle Replacement. Modifications to this guideline may be necessary dependent on physician specific instruction or other procedures performed. This evidence-based Total Ankle Replacement guideline is criterion-based; timeframes and visits in each phase will vary depending on many factors. The therapist may modify the program appropriately depending on the individual's goals for activity following a Total Ankle Replacement.

This guideline is intended to provide the treating clinician a frame of reference for rehabilitation. It is not intended to substitute clinical judgment regarding the patient's post-operative care based on exam/treatment findings, individual progress, and/or the presence of concomitant procedures or post-operative complications. If the clinician should have questions regarding post-operative progression, they should contact the referring physician.

PHASE	SUGGESTED INTERVENTIONS	MILESTONES FOR PROGRESSION
Pre-Op Phase	PT instruct patient in use of assistive device	**Goals:** • Demonstrate safe ambulation • Able to maintain NWB status on surgical side
Phase I Surgery – 2-3 Weeks	**Immobilization:** • Cast, splint • After two-week follow-up visit, removable boot **WB Status:** • NWB **Gait Training:** • Correct use of crutches/walker/knee scooter	**Goals:** • Skin healing • Protection of joint replacement • Perform ADLs safely and independently with use of crutches/walker/knee scooter while maintaining NWB status on surgical side **Criteria to Advance:** • Sutures are removed
Phase II Weeks 2-6 **Expected Visits:** 1	**Immobilization:** • Use of removable walker boot at all times **WB Status:** • WBAT in boot **Precautions:** • Techniques for inversion and eversion should be minimized and may be contraindicated if the patient has had ancillary procedures such as subtalar fusion or triple arthrodesis • Distal tibiofibular syndesmosis should not be mobilized	**Goals:** • Healing • Protection of joint replacement **Criteria to Advance:** • Cleared by Physician with appropriate healing for stage • Begin rehab @ 6-8 week

	• Soft tissue techniques may be used for swelling reduction and scar tissue mobilization • No strengthening against resistance if any tendon transfers **Therapy:** • Gentle PROM for two weeks • Scar tissue mobilization • Progress to AROM one to two times per week with focus on swelling reduction and pain control if needed • Home care exercise instructions for motion, pain and swelling control of ankle • HEP for strengthening of core, hips, and knees maintaining ankle precautions • AAROM, PROM, patient stretching and joint mobilization — Joint mobilization should focus on techniques for general talocrural distraction and facilitation dorsiflexion and plantarflexion	
Phase III Weeks 6-12	**Immobilization:** • Begin transition into a regular shoe per physicians recommended schedule • Use of removable walker for first two weeks **Shoe wearing schedule:** • Day 1: 1 hour/day • Day 2: 2 hours/day • Increase 1 hour /day until 8 hours of wear • May split time in half for am/pm, for example: — Day 1: 1 hour/day (30 min am, 30 min pm) If painful, do not advance to next day. If painful with 4 hours, wear boot remainder of day. Start over with day 4 the next day and do not go to day 5. **WB Status:** • WBAT — WB status and gait progression determined by physician and based on radiographic evidence of implant incorporation	**Goals:** • Swelling reduction • Increase in ROM: — Less than or equal to 10° of dorsiflexion and 30° to 40° of plantarflexion • Neuromuscular re-education • Develop baseline of ankle control and strength **Criteria to Advance:** • Normal gait pattern • Pain control • Edema managed

	Precautions: • Techniques for inversion and eversion should be minimized and may be contraindicated if the patient has had ancillary procedures such as subtalar fusion or triple arthrodesis • Distal tibiofibular syndesmosis should not be mobilized **Therapy:** • One to two times per week based on patient's initial presentation — Frequency may be reduced as the patient exhibits good recovery and progress towards goals, instruction in home care and exercise to complement clinical care • Once FWB, may progress to treadmill ambulation • Scar mobilization as needed • AROM, PROM, patient directed stretching and joint mobilization — Joint mobilization should focus on techniques for general talocrural distraction and facilitating dorsiflexion and plantarflexion • Strength: — Techniques should begin with isometrics in four directions with progression to resistive band/isotonic strengthening for dorsiflexion and plantarflexion • Due to joint fusions, eversion and inversion strengthening should continue isometrically • Band should progress to heavy resistance as tolerated • Swimming and biking allowed as tolerated • Step program: — Forward, lateral, and backward stepping as tolerated — Begin 2 – 3" and progress to normal step height • Gait training: — Emphasis on smooth cadence, heel strike and return to walking program • Proprioception: — May begin with seated BAPS board and progress to standing balance assisted exercises as tolerated	
Phase IV Weeks 12-24	**WB Status:** • Full – patient should exhibit normalized gait	**Goals:** • Functional ROM

	Therapy: • One time every two to four weeks based on patient status and progression • Discharged to an independent exercise program • ROM: — Patient to achieve greater than or equal to 10° of dorsiflexion and 40° of plantarflexion ⇒ Patients with prior ankle fusion may be limited in ROM to 5° of dorsiflexion and 30° to 35° of plantarflexion • Strength: — Progression to body weight resistance exercises with goal of ability to perform a single leg heel raise • Proprioception: — Single leg activities progressing into higher level balance & proprioception activities (therapad, rebounder, etc.) ⇒ Patient should be instructed in proprioceptive drills that provide both visual and surface challenges to balance • Agility: — Cone/stick drills — Leg press plyometrics — Soft-landing drills • Sports: — Prior to returning to any running or jumping activity, patient must display a normalized gait pattern and have strength to perform repetitive single leg heel raise ⇒ Ideally, no repetitive high impact sports or occupations	ideal: 10° DF, 40° PF • Strength 5/5 • Adequate proprioception for stable balance • Normalize gait • Tolerate full day of ADLs/work • Return to reasonable recreational activities **Criteria to Discharge:** • Discharge to independent exercise program once goals are achieved • Patient to be instructed in appropriate home exercise program