This rehabilitation program 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; time frames 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	Goals/Milestones for Progression
Pre-Op Phase	PT Instruct patient in use of assistive device	Goals of Phase: 1. Demonstrate safe ambulation 2. Able to maintain NWB status on surgical side
Phase I *Date of Surgery – 2 – 3 Weeks*	*Immobilization:* Cast, splint; after two-week follow-up visit, removable boot *WB Status:* Non-weight bearing Gait training with correct use of crutches/walker/knee scooter	*Goals of Phase:* 1. Skin healing 2. Protection of joint replacement 3. Perform ADL's safely and independently with us of crutches/walker/knee scooter while maintaining NWB status on surgical side *Criteria to Advance to Next Phase:* 1. Sutures are removed

Phase II *Weeks 2 – 6* Expected visits: 1	*Immobilization:* Use of removable walker boot at all times *WB Status:* Weight bearing in boot as tolerated *Therapy:* • Beginning with gentle passive range of motion for two-weeks • Scar tissue mobilization • Progress to active ROM: 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 *ROM:* AAROM, PROM, patient stretching and joint mobilization*. 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. The distal tibiofibular syndesmosis should not be mobilized. Soft tissue techniques may be used for swelling reduction and scar tissue mobilization. *Joint mobilization should focus on techniques for general talocrural distraction and facilitation dorsiflexion and plantarflexion. *NOTES:* No strengthening against resistance if any tendon transfers	*Goals of Phase:* 1. Healing 2. Protection of joint replacement *Criteria to Advance to Next Phase:* 1. Cleared by Physician with appropriate healing for stage begin rehab @ **6-8 week.**

Phase III *Weeks 6 – 12* *Rehab Program* *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 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. *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 full weight bearing, may progress to treadmill ambulation Scar mobilization PRN	*Goals of Phase:* 1. Swelling reduction 2. Increase in ROM 3. Neuromuscular re-education 4. Develop baseline of ankle control and strength *Criteria to Advance to Next Phase:* 1. Normal Gait pattern 2. Pain control 3. Edema managed

	ROM: AROM, PROM, patient directed stretching and joint mobilization*. 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. The distal tibiofibular syndesmosis should not be mobilized. *Joint mobilization should focus on techniques for general talocrural distraction and facilitating dorsiflexion and plantarflexion. Goals: less than or equal to 10° of dorsiflexion and 30° to 40° of 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 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 *Therapy:* One time every two to four weeks based on patient status and progression. To be discharged to an independent exercise. *ROM:* Patient to achieve greater than or equal to 10° of dorsiflexion and 40° of plantarflexion. Note: 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 and soft-landing drills *Sports:* Prior to return 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.	Goals of Phase: 1. Functional ROM a. Ideal: 10° DF, 35° PF 2. Strength 5/5 3. Adequate proprioception for stable balance 4. Normalize gait 5. Tolerate full-day of ADLs/work 6. Return to reasonable recreational activities *Criteria to Advance to Next Phase:* 1. Discharge to independent exercise program once goals are achieved 2. Patient to be instructed in appropriate home exercise program