



Dr. Brandon Scharer
Total Ankle Arthroplasty

Phase 1 – Maximum Protection Phase (0-8 weeks)

Goals for Phase 1

- Maximum protection
- Minimize effusion
- Proper assistive device use
- Progress hip and quad strength

Precautions

- No inversion and eversion
- NWB 1st 4 weeks in cast, then boot, then progress to weight bearing per physician in boot
- DF ROM: Neutral
- PF ROM: 20-30°

Post-op Physical Therapy

- 1st PT visit to occur at 8 weeks post-op after cast removed

Immobilization

- 0-2 weeks: Splint
- 2-8+ weeks: Walking boot or cast (per physician)
- 5 weeks: May sleep without boot on

Weight Bearing

- 0-4 weeks: NWB (per physician order)
- 4-8+ weeks: Walking boot at all times
- Progress to WBAT in CAM boot at 4 weeks, per physician (based on radiographic evidence)
- Wean from assistive device as indicated

Range of Motion

- Gentle ankle PROM/AROM DF>PF
- **No inversion or eversion** to be performed in this phase

Manual Therapy

- Scar mobility following closure of incision
- Gentle flexibility of lower extremity musculature
- PROM/AROM ankle DF/PF gently
- Joint mobilizations (Grade I-II)

Strengthening

- Quadriceps/Glut setting
- Hip strengthening (isometrics, clamshells, side lying hip abduction)
- Multi-plane OKC SLR, straight leg bridging, etc. until weight bearing
- Core strengthening

Edema Management

- Cryotherapy at home, 3x/day for 20 minutes each with ankle elevated
- Lymphatic massage
- Incision Management/Dressing
 - Collagen dressing can be used at home for tissue healing (per physician prescription)



Phase 2 – Early Ankle Active Range of Motion Phase (8-16 weeks)

Goals for Phase 2

- Early ankle AROM
- Minimize effusion
- Pain control
- Emphasis on home exercises
- Maintain hip and quad strength

Precautions

- No inversion and eversion
- WBAT in boot for 4-8+ weeks
- No Balance Fitter Board
- DF ROM: Neutral
- PF ROM: 20-30°

Weight Bearing

- Wean gradually into regular shoe at 8 weeks, per physician
- Wean out of boot increasing by 2 hours a day as pain and swelling allows
- Use of assistive device as needed
- Walking boot as pain indicates

Range of Motion

- Ankle PROM/AROM DF >PF
- **No inversion or eversion** to be performed in this phase

Manual Therapy

- Scar mobility following closure of incision
- Gentle flexibility of lower extremity musculature
- Progress PROM/AROM ankle DF >PF
- Joint mobilizations (Grades I-III)

Strengthening

- Light resistive ankle strength focusing on PF progressing from long sitting to seated calf raises to standing calf raises
- Foot intrinsics, toe yoga
- Ankle strengthening (isometrics progressing to isotonic)
- Hip strengthening (clamshells, hip abduction, hip extension)
- DL bridges
- Functional lower body strengthening exercises (i.e. squats, transfers, steps, etc.)
- Core strengthening

Cardiovascular Training

- Recumbent stepper
- Stationary biking (upright or recumbent)

Neuromuscular Control

- Double leg balance working towards single leg balance exercises
- Progressing from firm to compliant surfaces
- No Fitter Board or BAPS board

Aquatics

- Initiate aquatic therapy program when incisions closed
- Focus on normalization of gait pattern

Edema Management

- Cryotherapy at home, 3x/day for 20 minutes each with ankle elevated
- Lymphatic massage
- Compression socks (15-20mmHg) to be put on following a period of elevation of surgical LE

Phase 3 – Return to Activity and Work Phase (16+ weeks)

Goals for Return to Activity and Work

- Progress back to regular activities as tolerated

Range of Motion Expectations

- Dependent on pre-operative ROM (make as functional as possible)

Return to Work

- Sedentary job: No earlier than 3-4 weeks
- Significant standing or walking: No earlier than 4 months
- Anything in between: Per physician

Return to Activity

- Low level of activities such as biking, swimming, or walking
- Avoid impact activities that affect the joint

This protocol was reviewed and updated by Brandon Scharer, DPM, Sarah Burton, NP, and Katelyn Peterson, PT on 10/2/2025.

References:

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2. Saltzman et al. Total Ankle Replacement Revisited. *Journal of Orthopaedic & Sports Physical Therapy*. 2000; 30 (2): 56-67.
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4. P.M. Lagaay, and J.M. Schuberth. Analysis of Ankle Range of Motion and Functional Outcome Following Total Ankle Arthroplasty. *The Journal of Foot & Ankle Surgery*. 2010; 49: 147-151.
5. L.A. DiDomenico and M.C. Anania. Total Ankle Replacements: An Overview. *Clinical Podiatry Med Surg*. 2011; 28: 727-744.