

Total Ankle Arthroplasty

Precautions: For the first 4 weeks NWB. Total ankle arthroplasties utilize a trabecular metal replacement, so as you progress beyond this week gradual weight bearing is important and aids in the healing process (bone growth) of the joint replacement.

Phase I (1 – 3 weeks post-op)

- Wound care: Observe for signs of infection and begin scar management techniques when incision is closed
- Modalities: PRN for swelling (ice and elevation)
- Brace/Boot:
 - For 3 weeks, posterior splint or monovalved cast as directed by physician
 - The immobilization period is important to encourage the healing of the incision and surgical area to prevent replacement disruption
- Gait: NWB with crutches, walker, or knee scooter
- Goals:
 - Maintain hip and knee ROM
 - Improve core, hip, and knee strength to prepare for gait in phase II

Phase II (3 – 8 weeks post-op)

- Wound care: Observe for signs of infection and begin scar management techniques when incision is closed
- Modalities: PRN for swelling/pain (ice and elevation)
- Edema:
 - Gentle massage to control edema (distal to proximal)
- Brace/Boot:
 - Dr. Incandela: Until 7-8 weeks post-op, CAM boot
 - Dr. Pacaccio: CAM boot x12 weeks, At 6 weeks post-op, OK for supervised gait training in shoe in PT only
- Gait: WBAT and wean use of assistive device as directed by physician
- Goals:
 - Gradual increase of weight bearing with boot (as directed by surgeon's office) to promote healing
 - Avoid frontal plane movements (inv/eve) of the ankle such as twisting
 - Gradually increase strength/stability in the sagittal plane (PF/DF)
- ROM: Gentle ankle PROM progressing to AROM as allowed (maintain or achieve)
 - DF to 5 degrees

- PF to 20 degrees
- No frontal plane motions (inv/eve)
- No calf stretching (passive or active)
- Strengthening:
 - At 3 weeks post-op, begin isometrics
 - Quad sets, glute sets, hooklying abd/add, short foot exercises, gentle DF/PF only at submax 25%
 - Hip/knee strengthening
 - Core strengthening
 - Progress aerobic fitness with use of recumbent bike, stationary bike, or pool exercises
 - At 3 weeks post-op, may initiate closed-chain strengthening in CAM boot

Phase III (8 weeks – 16 weeks)

- Dr. Incandela: begin PT at 8 weeks post-op
- Gait: FWB with transition to normal footwear
 - Dr. Incandela: FWB with transition to normal footwear
 - Dr. Pacaccio: Until 12 weeks post-op, continue use of CAM boot; At 6 weeks post-op, OK for supervised gait training in shoe in PT only
- Goals:
 - Normalize independent gait in shoe
 - Complete bilateral heel raises
 - Initiate frontal plane exercises as allowed (inv/eve)
- ROM: AROM all planes to point of resistant (maintain or achieve)
 - DF to 10 degrees
 - PF to 30 degrees
 - Inv/eve within tolerable limits, no extreme range
- Strengthening:
 - Continue isometrics and progress to active strengthening (theraband) as tolerated to first point of resistance in ankle mobility, focusing on PF
 - Core/LE strengthening
 - Advance closed-chain strengthening in normal footwear with functional movements
- Stretching
 - Initiate gentle calf stretching
- Balance/Proprioceptive Activities
 - Initiate BAPS board in all planes
 - Progress static 2-legged exercises to single leg
 - Focus on ankle strategies (static and reaching outside BOS)



- Balance board, compliant foam surfaces, and ½ foam roll
- Return to Activity:
 - Walking, bike, and swimming ok
 - Avoid impact activities that affect the joint (jogging, jumping, running), unless otherwise advised per surgeon's office

Adapted From:

- 1) Consultation with Dr. Giovanni Incandela, DPM at OrthoIllinois
- 2) Consultation with Dr. Douglas Pacaccio, DPM, FACFAS at OrthoIllinois

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