

## Total Ankle Arthroplasty Protocol

Phase 1	Surgery to 6 weeks post-op
Appointments	<ul style="list-style-type: none"> <li>Rehabilitation appointments begin approximately 14 days after surgery, 1-2 times per week</li> </ul>
Rehabilitation Goals	<ul style="list-style-type: none"> <li>Activities of daily living (ADLs) with safe crutch/walker use; instruction as needed</li> <li>Control swelling and pain</li> <li>Begin ankle range of motion (ROM) at 2 weeks: Dorsiflexion (DF)/plantar flexion (PF)</li> <li>Maintain hip and knee ROM</li> <li>Increase hip, knee and core strength</li> </ul>
Precautions	<ul style="list-style-type: none"> <li>Non-weight bearing (NWB); short leg cast for two weeks, followed by tall CAM boot for one month or until week 6</li> <li>Watch for signs of infection</li> <li>Avoid long periods of dependent positioning of the foot and complete frequent elevation</li> </ul>
Suggested Therapeutic Exercise/Treatment	<ul style="list-style-type: none"> <li>Frequent elevation of ankle above the level of the heart</li> <li>Ankle active range of motion (AROM: DF/PF)</li> <li>Four-way leg raises lying down</li> <li>Knee AROM</li> <li>Transverse abdominis recruitment</li> <li>Edema massage</li> </ul>
Cardiovascular Exercise	<ul style="list-style-type: none"> <li>Upper Body Ergometer (UBE)</li> </ul>
Progression Criteria	<ul style="list-style-type: none"> <li><input type="checkbox"/> 6 weeks post-op</li> <li><input type="checkbox"/> No wound complications</li> </ul>

## Total Ankle Arthroplasty Protocol

Phase 2	Begin after meeting Phase 1 criteria (usually 6 weeks after surgery)
Appointments	<ul style="list-style-type: none"> <li>• Rehabilitation appointments are 1-2 times every 1-2 weeks</li> </ul>
Rehabilitation Goals	<ul style="list-style-type: none"> <li>• Reduce swelling</li> <li>• Increase ankle ROM in all planes</li> <li>• Weight-bearing tolerance in boot with safe ADL progression</li> <li>• Increased mobility of scar</li> <li>• Maintain hip/knee ROM, strength and flexibility</li> </ul>
Precautions	<ul style="list-style-type: none"> <li>• Progress weight bearing in boot per surgeon's instructions</li> <li>• MUST be pain free, normal gait</li> <li>• Week 6-10 in CAM boot:               <ul style="list-style-type: none"> <li>○ Week 6-8: up to 50% weight bearing</li> <li>○ Week 8-10: progression to full weight bearing</li> </ul> </li> <li>• Week 10: Begin progression into normal shoe</li> <li>• Continue to sleep in the boot</li> </ul>
Suggested Therapeutic Exercises	<ul style="list-style-type: none"> <li>• Gait training and weight shifts</li> <li>• Ankle AROM/passive range of motion (PROM)</li> <li>• Calf stretching</li> <li>• Scar massage and soft tissue mobilization of calf</li> <li>• Joint mobilization: focus on talocrural distraction to improve ankle DF/PF</li> <li>• Four-way ankle isometrics</li> <li>• Seated tilt/BAPS board</li> <li>• Seated knee extension and prone hamstring curls against gravity (no ankle weights)</li> <li>• Four-way leg raises in standing</li> <li>• Transverse abdominis strengthening</li> </ul>
Cardiovascular Exercise	<ul style="list-style-type: none"> <li>• Stationary bike (in boot, no resistance)</li> <li>• Swimming (once wound is fully healed)</li> <li>• Aquatic therapy may begin if available</li> </ul>
Progression Criteria	<ul style="list-style-type: none"> <li><input type="checkbox"/> Able to ambulate independently in walking boot</li> <li><input type="checkbox"/> Active ROM between 5° DF and 20° PF</li> </ul>

## Total Ankle Arthroplasty Protocol

Phase 3	Begin after meeting Phase 2 criteria (usually 10 weeks after surgery)
Appointments	<ul style="list-style-type: none"> <li>• Rehabilitation appointments are once per week</li> </ul>
Rehabilitation Goals	<ul style="list-style-type: none"> <li>• WBAT in shoe</li> <li>• Normalize gait without assistive device</li> <li>• Retrain ankle proprioception</li> <li>• Improve ankle strength</li> </ul>
Precautions	<ul style="list-style-type: none"> <li>• Avoid exercises that create movement compensations</li> <li>• Wean from boot and progress WBAT, with use of Hely-Weber Zap ankle brace as needed</li> </ul>
Suggested Therapeutic Exercises	<ul style="list-style-type: none"> <li>• Gait training</li> <li>• Scar massage and joint mobilizations as needed</li> <li>• Calf stretching</li> <li>• Four-way ankle strengthening with resistance band</li> <li>• Balance and proprioception exercises</li> <li>• Functional movements (squats, steps)</li> <li>• Core and lower extremity strengthening</li> </ul>
Cardiovascular Exercise	<ul style="list-style-type: none"> <li>• Stationary bike</li> <li>• Swimming</li> <li>• Aquatic therapy</li> </ul>
Progression Criteria	<ul style="list-style-type: none"> <li><input type="checkbox"/> Able to ambulate independently in shoe</li> <li><input type="checkbox"/> Able to complete bilateral heel raises</li> </ul>

## Total Ankle Arthroplasty Protocol

Phase 4	Begin after meeting Phase 3 criteria (usually 14 weeks after surgery)
Appointments	<ul style="list-style-type: none"> <li>• Rehabilitation appointments are once every 2-4 weeks</li> </ul>
Rehabilitation Goals	<ul style="list-style-type: none"> <li>• Normal gait pattern</li> <li>• Single leg stance with good control for &gt;10 seconds</li> <li>• Ankle ROM between 10° DF and 35° PF</li> <li>• Able to complete single leg heel raise</li> </ul>
Precautions	<ul style="list-style-type: none"> <li>• Avoid forceful impact activities</li> <li>• Anticipate return to golf at 3-4 months, hiking at 4-5 months</li> </ul>
Suggested Therapeutic Exercises	<ul style="list-style-type: none"> <li>• Balance and proprioception exercises on unstable surfaces</li> <li>• Higher level core and lower extremity strengthening exercises</li> <li>• Higher level functional movements (floor transfers, lunges walking on hillsides)</li> </ul>
Cardiovascular Exercise	<ul style="list-style-type: none"> <li>• Stationary bike progressing to outdoor cycling</li> <li>• Swimming</li> <li>• Walking</li> <li>• Golfing</li> </ul>