# Total Ankle Arthroplasty Protocol

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Surgery to 6 weeks post-op</th>
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</thead>
<tbody>
<tr>
<td><strong>Appointments</strong></td>
<td>• Rehabilitation appointments begin approximately 14 days after surgery, 1-2 times per week</td>
</tr>
</tbody>
</table>
| **Rehabilitation Goals** | • Activities of daily living (ADLs) with safe crutch/walker use; instruction as needed  
• Control swelling and pain  
• Begin ankle range of motion (ROM) at 2 weeks: Dorsiflexion (DF)/plantar flexion (PF)  
• Maintain hip and knee ROM  
• Increase hip, knee and core strength |
| **Precautions** | • Non-weight bearing (NWB); short leg cast for two weeks, followed by tall CAM boot for one month or until week 6  
• Watch for signs of infection  
• Avoid long periods of dependent positioning of the foot and complete frequent elevation |
| **Suggested Therapeutic Exercise/Treatment** | • Frequent elevation of ankle above the level of the heart  
• Ankle active range of motion (AROM: DF/PF)  
• Four way leg raises lying down  
• Knee AROM  
• Transverse abdominis recruitment  
• Edema massage |
| **Cardiovascular Exercise** | • Upper Body Ergometer (UBE) |
| **Progression Criteria** | • 6 weeks post-op  
• No wound complications |
# Total Ankle Arthroplasty Protocol

<table>
<thead>
<tr>
<th>Phase 2</th>
<th>Begin after meeting Phase 1 criteria (usually 6 weeks after surgery)</th>
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<tbody>
<tr>
<td>Appointments</td>
<td>- Rehabilitation appointments are 1-2 times every 1-2 weeks</td>
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</table>
| Rehabilitation Goals | - Reduce swelling  
- Increase ankle ROM in all planes  
- Weight-bearing tolerance in boot with safe ADL progression  
- Increased mobility of scar  
- Maintain hip/knee ROM, strength and flexibility |
| Precautions | - Progress weight bearing in boot per surgeon’s instructions  
- MUST be pain free, normal gait  
- Week 6-10 in CAM boot:  
  o Week 6-8: up to 50% weight bearing  
  o Week 8-10: progression to full weight bearing  
- Week 10: Begin progression into normal shoe  
- Continue to sleep in the boot |
| Suggested Therapeutic Exercises | - Gait training and weight shifts  
- Ankle AROM/passive range of motion (PROM)  
- Calf stretching  
- Scar massage and soft tissue mobilization of calf  
- Joint mobilization: focus on talocrural distraction to improve ankle DF/PF  
- Four-way ankle isometrics  
- Seated tilt/BAPS board  
- Seated knee extension and prone hamstring curls against gravity (no ankle weights)  
- Four-way leg raises in standing  
- Transverse abdominis strengthening |
| Cardiovascular Exercise | - Stationary bike (in boot, no resistance)  
- Swimming (once wound is fully healed)  
- Aquatic therapy may begin if available |
| Progression Criteria | - Able to ambulate independently in walking boot  
- Active ROM between 5° DF and 20° PF |
# Total Ankle Arthroplasty Protocol

<table>
<thead>
<tr>
<th>Phase 3</th>
<th>Begin after meeting Phase 2 criteria (usually 10 weeks after surgery)</th>
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</thead>
<tbody>
<tr>
<td>Appointments</td>
<td>- Rehabilitation appointments are once per week</td>
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</tbody>
</table>
| Rehabilitation Goals | - WBAT in shoe  
- Normalize gait without assistive device  
- Retrain ankle proprioception  
- Improve ankle strength |
| Precautions | - Avoid exercises that create movement compensations  
- Wean from boot and progress WBAT, with use of Hely-Weber Zap ankle brace as needed |
| Suggested Therapeutic Exercises | - Gait training  
- Scar massage and joint mobilizations as needed  
- Calf stretching  
- Four-way ankle strengthening with resistance band  
- Balance and proprioception exercises  
- Functional movements (squats, steps)  
- Core and lower extremity strengthening |
| Cardiovascular Exercise | - Stationary bike  
- Swimming  
- Aquatic therapy |
| Progression Criteria | - Able to ambulate independently in shoe  
- Able to complete bilateral heel raises |
# Total Ankle Arthroplasty Protocol

<table>
<thead>
<tr>
<th>Phase 4</th>
<th>Begin after meeting Phase 3 criteria (usually 14 weeks after surgery)</th>
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</thead>
<tbody>
<tr>
<td>Appointments</td>
<td>Rehabilitation appointments are once every 2-4 weeks</td>
</tr>
</tbody>
</table>
| Rehabilitation Goals | Normal gait pattern  
| | Single leg stance with good control for >10 seconds  
| | Ankle ROM between 10° DF and 35° PF  
| | Able to complete single leg heel raise |
| Precautions | Avoid forceful impact activities  
| | Anticipate return to golf at 3-4 months, hiking at 4-5 months |
| Suggested Therapeutic Exercises | Balance and proprioception exercises on unstable surfaces  
| | Higher level core and lower extremity strengthening exercises  
| | Higher level functional movements (floor transfers, lunges walking on hillsides) |
| Cardiovascular Exercise | Stationary bike progressing to outdoor cycling  
| | Swimming  
| | Walking  
| | Golfing |