

REHABILITATION FOLLOWING TOTAL KNEE ARTHROPLASTY

***Outpatient physical therapy should begin as soon as possible after hospitalization. In many cases, the patient will not require placement in a rehabilitation facility or need home physical therapy. In cases that do require placement or home health care, the duration should not exceed 2 weeks unless medically necessary.**

Pre-operative

- Teach postoperative exercises and give patient handout
- Teach transfers to patient/family
- Teach ambulation with walker

Phase 1: Immediate Postoperative Phase (Day 1-14)

- Goals:**
1. 3+/5 quadriceps strength
 2. Safe, independent transfers and ambulation with walker
 3. Passive knee extension to 0 degrees
 4. Passive knee flexion to 90 degrees or greater
 5. Control of inflammation

Day 1-3:

- WBAT with walker
- CPM 0-45 degrees (increase 5-10 degrees per day)
- Cryotherapy and elevation x 15 minutes every 2 hours
- Exercises:
 1. Ankle pumps with LE elevated
 2. Passive knee extension
 3. Passive knee flexion
 4. Quad sets
 5. SLRs (supine)
 6. LAQs
- NMES with quad exercises
- Manual therapy:
 1. PROM
 2. Soft tissue mobilization

Day 4-14:

- Continue WBAT with walker
- CPM 0-90 degrees
- Continue cryotherapy and elevation
- Exercises:
 1. Ankle pumps with LE elevated

- 2. Passive knee extension
- 3. Passive knee flexion
- 4. Quad sets
- 5. SLRs (4-position)
- 6. LAQs (90-0 degrees)
- 7. SAQs
- 8. Prone hamstring curls and hang (for stretch)
- Continue NMES
- Manual therapy:
 - 1. PROM
 - 2. P-F mobilization
 - 3. Soft tissue mobilization

Phase 2: Motion Phase (Week 2-6)

- Goals:**
- 1. Increase ROM
 - 2. Increase muscular strength and endurance
 - 3. Improve dynamic joint stability
 - 4. Decrease inflammation
 - 5. Establish return to functional activities

Week 2-4:

- Continue cryotherapy and elevation
- Continue exercise protocol listed above
 - Add stationary bike/Nu Step, leg press, standing TKE, partial squats, heel/toe raises
 - Continue NMES prn
- Manual therapy:
 - 1. PROM
 - 2. P-F mobilization
 - 3. Soft tissue mobilization
 - 4. Incision scar mobilization

Week 4-6:

- Continue cryotherapy
- Continue all exercises listed above
 - Add treadmill for gait training, step-ups (front and lateral), pool program
- NMES prn
- Continue manual therapy

Phase 3: Intermediate Phase (Week 6-12)

- Goals:**
- 1. Progression of ROM (0-115 degrees or greater)
 - 2. Enhancement of strength and endurance
 - 3. Improve cardiovascular fitness

- 4. Independent ambulation**
- 5. Functional activity performance**

Week 6-12:

- **Continue all exercises listed in Phase 2**
- **Progress from ambulation with cane to independent ambulation**
- **Initiate progressive walking program**
- **Initiate endurance program (pool/bike/treadmill)**
- **Return to functional activities**

Advanced Activity Phase (Week 12-24)

- Goals:**
- 1. Prepare selected patients to return to advanced level of function (recreational sports)**
 - 2. Increase/maintain LE strength and endurance**
 - 3. Return to normal lifestyle**
 - **Continue all exercises listed in Phase 3**
 - **Initiate sport-specific exercises for gradual return to golf/tennis/etc.**