



Dr. David M. Sedory

O: 912-644-5321 F: 912-629-3501 C: 912-677-6156

## Therapy Protocol for TKA

### I. **Immediate Postoperative Phase (Day 1 to 10)**

- Focus:**
- 1) Active quadriceps muscle contraction
  - 2) Independent ambulation (Walker/two crutches WBAT)
  - 3) Passive knee extension to 0°
  - 4) Knee flexion to 70° or greater
  - 5) Control of swelling, inflammation, bleeding
  - 6) HEP compliance (ext/flex)

#### **Day 1 to 2**

**Weight Bearing** – WBAT or TBD by surgeon

**Gait**- with chosen AD

**CPM**- 0 to 70° as tolerated

**ROM**- 0-70° Minimum

**Cryotherapy** - 20 min of each hour

**Positioning**- Elevated at or above heart level

**Exercises:**

Ankle pumps with leg elevation  
Passive knee extension exercise (capsule)  
Hamstring stretches (gentle)  
Quad sets/SAQ/LAQ/SLR  
Heel slides seated and or supine

#### **Day 4 to 10**

**Weight Bearing** - As tolerated with AD

**CPM** - 0 to 90° (only if issued for home use by MD)

**ROM** – 0-90° Minimum

**Exercises:**

Ankle pumps with leg elevation  
Passive knee extension stretch  
Quad Sets  
Knee extension exercise  
LAQ/SAQ  
Seated/supine heel slides (no over pressure)  
Bicycle for ROM

**Gait Training** - Continue gait training with AD

**Positioning** - Elevated at or above heart level

## II. Phase 2 (Week 2-4)

- Focus:**
- 1) Full Ext to 0 (consider extension aide if ext > -10°)
  - 2) Normalize gait pattern with AD
  - 3) Swelling/inflammation control
  - 4) Patellar mobility (begin daily patellar mobilization when incision allows as well as on HEP)
  - 5) Incision care (when appropriate, do not remove water tight dressing)

### Week 2-4

**Weight Bearing** - WBAT with assisted device

**Gait Training** - Continue gait training with AD

**ROM**- ext 0, flexion 100-120°

**Exercises:**

\*Previous exercises should be basic HEP

Standing terminal knee extension (TKE)

Side lying Hip abduction

Sit to stand working from high to low surface

Bicycle ROM Min weight

LAQ/SAQ light resistance

Hamstring curls light resistance

Shuttle press bilateral and single LE light <50% BW

**Cryotherapy/compression**- 20min 4x per day, consider added compression

**Positioning** - Elevated at or above heart level

### Week 4-6

**Focus**

- 1) Restore soft tissue and joint mobility
- 2) Begin balance training
- 3) Continue gait normalization
- 4) Gradual increase in strength and conditioning while monitoring effusion
- 5) Achieve ROM goals (consider extension assist brace if lacking extension at 4 weeks)
- 6) HEP should reflect functional movement
- 7) Continue manual for patella and scar mobility

**Gait Training** - Continue gait training with AD

**Exercises:**

\* Continue all exercises listed previously

\* Initiate:

- Front and lateral step-ups (minimal height week 4)
- Reciprocal stair climbing
- Progressive resistance 5# or less with open chain exercises
- Balance training, tiltboard and proprio
- Eccentron
- Shuttle/ leg press
- Super band standing hip abd
- Bicycle, elliptical, or treadmill for conditioning

**Cryotherapy/compression-** 20min 4x per day, consider Tubi-grip

**Positioning** - Elevated at or above heart level

### III. **Phase 3 (Week 6-12)**

- Focus:**
- 1) ROM (0 to 120° degrees)
  - 2) Enhancement of strength/endurance
  - 3) Eccentric muscle control (stairs, sit-stand)
  - 4) Functional strength with ADLs
  - 5) Wean to least restrictive/no AD with ambulation
  - 6) Minimize effusion

**Exercises:**

Continue all exercises listed in Phase II  
Initiate progressive pool/walking/conditioning program  
Return to functional activities  
Emphasize eccentric/concentric knee control

### IV. **Advanced program (Week 12-16) only for selected patients**

- Focus:**
- 1) Allow selected patients to return to advanced level of function
  - 2) Maintain/improve strength and endurance of lower extremity
  - 3) Return to normal life style

**Criteria to enter for advanced program**

Full non-painful ROM 0-120° degrees  
Strength of 4+/5 or 85% of contralateral limb  
Minimal-no pain and swelling  
Satisfactory clinical examination

**Exercises:**

-Beginning at week 12 with return to gym and non-impact cardio program  
-Week 16 with MD approval may initiate gradual golf, tennis, swimming, bicycle, walking program