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## Rehabilitation Following Revision Unilateral Patellar Tendon Repair

### I. Immediate Postoperative Phase (Days 1-7)

**Goals:** Restore full passive knee extension  
Diminish pain and joint swelling  
Restore patellar mobility  
Initiate early controlled motion  
\*Controlled forces on repair site

#### Postoperative Days 1-4

- **Brace:** Drop locked brace locked at 0° extension with compression wrap  
Sleep in brace, ambulate in brace
- **Weight bearing:** Toe touch-25% BW WB with crutches, brace in full extension
- **Range of motion:** 0-20°
- **Exercises:** Ankle pumps  
Quad sets  
Patellar mobilization
- **Ice and elevation:** 20 minutes of each hour at elevate

#### Postoperative Day 4-7

- **Brace:** Continue use of brace (sleep in brace locked)
- **Weight bearing:** Locked brace two crutches, continue toe-touch-25% WB
- **Range of motion:** 0-30°  
No CPM
- **Exercises:** Continue all listed exercises
- **Ice and elevation:** Continue ice and elevation

### II. Maximum Protection Phase (Weeks 2 to 6)

**Goals:** Control forces on healing tendon  
Gradually increase knee flexion  
Restore full passive knee extension  
Restore patellar mobility  
Retard muscular atrophy

#### Week 2:

- **Brace:** Continue use of locked brace (4-6 weeks)  
Sleep in brace (4-6 weeks)
- **Weight bearing:** Toe Touch WB (usually <25% BW)

- **Range of motion:** PROM knee flexion only 0-30°  
Full passive knee extension  
Patellar mobilization
- **Exercises:** Electrical muscle stimulation to quads  
Quad sets  
Ankle pumps
- **Ice and elevation:** Continue ice, elevation and compression

**Week 3:**

- **Exercise:** Continue above mentioned exercises
- **Range of Motion:** ROM: 0-45°
- Continue use of two crutches – 50% BW with locked brace

**Week 4:**

- **Exercise:** Continue all exercises listed above
- **Weight bearing:** 50% with 2 crutches
- **Range of Motion:** PROM: 0-60°
- **Exercises:** Continue quads sets & gravity eliminated SLR

**Weeks 5-6:**

- Discontinue use of 1 crutch at 5 weeks postop
- **Brace:** Unlock brace for ambulation at 6 weeks
- **Range of motion:** PROM  
Week 5: 0-75°  
Week 6: 0-75°
- **Exercises:** Initiate pool exercises  
Continue all exercises listed above
- **Ice and elevation:** Continue ice, compression and elevation as needed

**III. Moderate Protection Phase (Weeks 7-16)**

**Goals:** Control forces during ambulation and ADL's  
Progress knee flexion ROM  
Improve lower extremity muscular strength  
Restore limb confidence and function

**Weeks 7-10:**

- **Brace:** Use postop brace unlocked for ambulation until 7-8 weeks  
(or until determined safe)  
Discontinue sleeping in brace

- **Range of motion:** **Week 7:** 0-80°  
**Week 8:** 0-90°  
**Week 10:** 0-100°
- **Exercises:** \*Gradually increase muscular strength  
Straight leg raises (flexion)  
Hip abd/adduction  
Bicycle  
Pool program

#### **Weeks 12-16:**

- **Range of motion:** **Week 12:** 0-110°
- **Exercises:** \*Continue all exercises listed above  
Initiate light leg press  
Initiate lateral step ups  
\*No sports!

#### **IV. Light Activity Phase (Months 4-6)**

**Goals:** Enhancement of strength, endurance  
Initiate functional activities  
Improve tensile strength properties of tendon

- **Exercises:** Continue strengthening exercises  
Continue emphasis on eccentrics and functional exercises  
May begin to gradually increase knee flexion beyond 115

#### **V. Return to Sport Activity Phase (Months 7-9)**

##### **Criteria to Return to Activities:**

1. Satisfactory clinical exam
2. Satisfactory strength
3. Proprioception test 80% > of opposite leg
4. Appropriate rehab progression

**Goals:** Gradual return to full-unrestricted sports  
Continue strength program  
Continue functional/agility drills

**Exercises:** Continue strengthening exercises  
Continue agility program\*  
Continue sport specific training\*

\* Physician decision regarding activities and when to initiate