



Dr. Huff Patellar Tendon Repair Rehabilitation Protocol

I. IMMEDIATE PREOPERATIVE PHASE

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

Postoperative Days 1 - 4

Brace: Drop locked brace 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: 0–30°
CPM 0–45° as tolerated

Exercises: Ankle pumps
Quad sets
Patellar mobilization
Hip abd/adduction

Cryotherapy/Elevation – 20 minutes of each hour at elevation

Postoperative Day 4–7

Continue use of brace (sleep in brace locked)

Weight Bearing: Locked brace 2 crutches, continue toe–touch–25% WB

Range of Motion: 0–45°
CPM 0–75° as tolerated

Exercises: Continue all listed exercises
Initiate gravity eliminated SLR flexion (assisted)

Continue ice and elevation

II. MAXIMUM PROTECTION PHASE (Weeks 2–6)

Goals: Controlled forces on healing tendon
Gradually increase knee flexion
Restore full passive knee extension
Restore patellar mobility
Retard muscle atrophy

Week 2:

Brace: Continued use of locked brace (4–6 weeks)

Weight Bearing: WBAT (usually 25–50% BW)

Range of motion: PROM knee flexion only 0–60°
Full passive knee extension
Patellar mobilization

Exercises: Electrical muscle stimulation to quads
Quad sets
Ankle pumps
Hip abd/adduction
Gravity eliminated SLR flexion

Ice and Evaluation: Continue ice, elevation, and compression

Week 3:

Continue above mentioned exercises

Range of Motion: 0–75°

Continue use of 2 crutches—75-80% BW

Week 4:

Continue all exercises listed above

Weightbearing: Progressed to WBAT

PROM: 0–75°

Exercises: Initiate mini squats (0–45°)
 Initiate weight shifts
 Initiate proprioception drills

Week 5–6:

Discontinue use of crutch at 5 weeks postop

Unlock brace for ambulation at 6 weeks

PROM: Week 5: 0-80°
 Weeks 6: 0-90°

Exercises:
 Initiate pool exercise program
 Active knee extension 90–30°
 Multi-angle isometrics knee extension
 Continue all exercises listed above
 Initiate anti-gravity SLR flexion

Continue ice, compression, and elevation as needed

II. MODERATE PRORECTION PHASE (Week 7-16)

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

Week 7–10:

Brace: Use postop brace unlocked for ambulation until 7–8 weeks
 Discontinue sleeping in brace

Range of motion: Week 7: 0-95/100°
 Week 8: 0–100/105°
 Week 10: 0–115°

Exercises: Gradually increase muscular strength
 Straight leg raises (flexion)
 Hip abd/adduction
 Knee extension 90–0°
 Mini squat
 Leg press
 Wall squats
 Front lunges
 Lateral lunges
 Calf raises

Hamstring curls
Proprioception drills
Bicycle
Pool program

Weeks 12–16:

Range of motion: Week 12: 0–125°

Exercises: Continue all exercises listed above
Initiate lateral step ups
Initiate forward step downs
Initiate backward lunges
Walking program
NO sports!

III. LIGHT ACTIVITY PHASE (Months 4-6)

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

Exercises: Continue strengthening exercises
Continue emphasis on eccentric's and functional exercises
May initiate plyometrics (month 5)
May initiate agility drills (lateral shuffle) month 5
May initiate light running months 5–6

IV. RETURN TO SPORT ACTIVITY PHASE (Months 7-9)

Criteria to Enter Phase IV:

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

Goals: Gradual return to full unrestricted sport
Continue strength program
Continue functional/agility drills

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

MUST PASS FUNCTIONAL TEST IN ORDER TO RETURN TO SPORT