

Robert Kollmorgen DO

## Patellar Tendon Debridement Rehab Protocol Prescription

Diagnosis: Patellar tendinopathy

Frequency: 2-3 visits/week

Duration: 4 months

### Weeks 1-3

- HEP including SLR with brace in full extension and active assisted ROM to a goal of 45-90 deg by 3 weeks.
- WBAT with brace locked in extension.

### Weeks 3-4

- Supervised PT - 3 times a week (may need to adjust based on insurance)
- Gentle patellar mobilization exercises
- Perform scar massage aggressively
- Emphasis full passive extension
- AAROM exercises (4-5x/ day) - 0-90
- ROM goal: 0-90 degree
- Flexion exercises PROM, AAROM, and with brace off
- Stationary bike for range of motion (short crank or high seat, no resistance)
- Hamstring and calf stretching
- Hip strengthening - specifically external rotators
- Isotonic leg press (0 - 60 degrees)
- Unlock brace (0-60) for ambulation when good quad control
- Progressive SLR program with weights for quad strength with brace off if no extensor lag (otherwise keep brace on and locked)
- Theraband standing terminal knee extension
- Proprioceptive training bilateral stance
- Double leg balance on tilt boards • Add water exercises if desired (and all incisions are closed and sutures out)

### Weeks 5-6

- Mini-squats (0-45) and heel raises Hamstring PREs
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- 4 inch step ups
- Seated leg extension (0 to 40degrees) against gravity with no weight
- D/C brace if adequate quad control and normal gait pattern

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- Isotonic leg press 0-90
- AAROM 4-5x's day (no limits) goal 0-120
- Initiate retro treadmill with 3% incline (for quad control)

### Week 7

- Continue all exercises
- Continue ROM stretching and overpressure into extension 4-5x's day  
Goal: 0 to 130 degrees
- Wall and/or ball squats (0-60)
  - Eccentric leg press
  - 6 inch front step-ups
  - 4 inch step downs
  - SLR's - in all planes with weight

### Week 8

- Continue above exercises
- ROM 4-5x/day Goal full ROM
- Regular stationary bike if Flexion > 115
- 8 inch step ups
- 4 inch step downs
- Single leg proprioceptive training
- Lateral step out with therabands
- Retro treadmill progressive inclines
- Sport cord (bungee) walking
- Increase resistance on stationary bike
- Squats 0-90

### Week 9

- Continue above exercises
- Open chain knee extension no resistance
- Stairmaster machine
- Brisk walking
- Progress balance and board throws
- 6 inch step downs
- Bike outdoors, level surfaces only
- Start slide board
- Plyometric leg press
- 8 inch step downs

### Week 11

- Begin resistance for open chain knee extension
- Jump down's (double stance landing)
- Plyometric program
- Progress to running program and light sport specific drills if:  
Quad strength > 75% contralateral side  
Active ROM 0 to > 125 degrees

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Functional hop test >70% contralateral side

Swelling < 1cm at joint line

No pain

Demonstrates good control on jump down

**Week 12-22**

• If full ROM, quad strength > 80% contralateral side, functional hop test >85% contralateral side, satisfactory clinical exam:

Progress to home program for running. Start backward jogging, figure of 8, zigzags and lateral shuffles. Progress to hops, jumps, cuts and sports specific drills. Begin to wean from supervised therapy.

• Criteria to return to sports

Full Active ROM

Quadriceps and hip external rotators strength >90% contralateral side

Satisfactory clinical exam

Functional hop test > 90% contralateral side

Completion of running program