

Ronak M. Patel, MD

Extensor Mechanism Repair **Quad Tendon, Patellar Tendon, Patella Fracture** **Rehabilitation Guidelines**

Phase I for Immobilization and Rehabilitation: 0-2 weeks

GOALS:

- Control pain and inflammation
- Maintain patellar mobility
- Maintain hamstring strength of the ipsilateral leg and lower extremity strength of the contralateral leg

Intervention:

- Crutch training with weight-bearing as tolerated (WBAT) in full extension only
- Ice and elevation
- Isometric ipsilateral hamstring exercise, contralateral LE strengthening
- Gentle medial/lateral patellar mobilization (~25%)
- Hinged knee brace locked in extension
- Ankle pumps/Quad Sets

Phase II for Immobilization and Rehabilitation: 2-6 weeks

GOALS:

- Control pain and inflammation
- Weight-bearing as tolerated (WBAT) in full extension only
- Maintain patellar mobility
- Active flexion to 90° and passive knee extension to 0°
- Maintain ipsilateral hamstring and contralateral LE strength
- Continue ipsilateral quadriceps retraining

Intervention:

- WBAT in full extension
- Ice and elevation
- Isometric ipsilateral hamstring exercise, contralateral LE strengthening
- Gentle medial/lateral patellar mobilization (~25%)
- AROM, AAROM and PROM
- Hinged knee brace locked in extension during WB, unlock for exercises
- Ipsilateral quadriceps sets (NO straight leg raises)

Phase III for Immobilization and Rehabilitation: 6-12 weeks

GOALS:

- Control pain and inflammation
- Progress to full active ROM

- Maintain patellar mobility
- Maintain ipsilateral hamstring and contralateral LE strength
- Continue ipsilateral quadriceps retraining

Intervention:

- Weight-bearing as tolerated with brace unlocked
 - Maintain brace until good quadriceps control and normal gait are obtained, then can discontinue
- Gait training
- Ice and elevation
- Isometric ipsilateral hamstring exercise, contralateral LE strengthening
- Gentle medial/lateral patellar mobilization (~50%)
- AROM
- Ipsilateral quadriceps strengthening (straight leg raises without resistance and stationary cycling at 8 weeks)

Phase IV for Rehabilitation: 12-16 weeks

GOALS:

- Complete weight-bearing
- Progress ipsilateral quadriceps strength
- Begin neuromuscular retraining

Intervention:

- Gait Training
- No immobilization
- Ipsilateral quadriceps strengthening
- Proprioception and balance activities (including single leg support)

Phase V for Rehabilitation: 16-24 weeks

GOALS:

- Begin running
- Sport/Job specific training

Intervention:

- Progress program as listed with sport or job specific training

Phase VI for Rehabilitation: >6 months

- May begin jumping and contact sports when ipsilateral strength is 85-90% of contralateral extremity