Connecticut Orthopaedics

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Sports Medicine/Foot & Ankle

Patellar Tendon Repair or Quad Tendon Repair
Or Patellar Fracture ORIF
Post-Operative Protocol

Phase I - Maximum Protection
Weeks 0-6

- Brace locked in full extension for 6 weeks for all weight bearing
- Partial weight bearing (50%) with use of bilateral axillary crutches progressing to weight bearing as tolerated
  - PWB for weeks 0-2
  - Progress to WBAT for weeks 2-6
- Initiate isometric quadriceps muscle activation
- Initiate and progress range of motion

Patellar Tendon Repair/Quad Tendon Repair:
- 0-2 weeks: 0-30 degrees
- 2- 4 weeks: 0-60 degrees
- 4-6 weeks: 0-90 degrees

Patellar Fracture ORIF:
- 0-2 weeks: No range of motion
- 2-4 weeks: 0-30 degrees
- 4-6 weeks: 0-60 degrees

Goals
- Reduce inflammation and pain
- Protect surgical repair
- Maintain full knee extension range of motion
- Maintain strength and motion of non-operative joints
- Gradually progress knee range of motion
- Quadricep activation

Exercise progression
- Passive/active knee range of motion per protocol
- Quad sets, hamstrings sets, glute sets
- Multi-plane straight leg raises at 2 weeks (no extensor lag)
- Ankle and foot range of motion
- Patellofemoral mobilizations
- Gait training
- Elevation and cryotherapy to assist with swelling reduction

Phase II- Progressive Stretching and Early Strengthening
Weeks 6 to 8:

- Brace unlocked for 2 weeks, transition out of brace at 8 weeks
- Full weight bearing
- Progress range of motion

Patellar Tendon Repair/Quad Tendon Repair:
- 6+ weeks: progress to full

Patellar Fracture ORIF:
- 6-8 weeks: 0-90 degrees
- 8+ weeks: progress to full

- Initiate closed chain strengthening in double limb progressing to single limb
- Initiate balance and proprioception exercises

Goals
- Reduce inflammation and pain
- Protect surgical repair
- Full knee extension/hyperextension
- Progress knee flexion range of motion
- Maintain strength of non-operative joints
- Normalizing gait pattern

Exercise progression
- Initiate bike at 6 weeks
- Patellofemoral mobilizations
- Maintain squat depth at 90 degrees or above
- Step up progression
- Gait training
- Elevation and cryotherapy to assist with swelling reduction

Phase III- Progressive Strengthening
Weeks 8 to 16:
- Discontinue brace
- Progress to full range of motion
- Advance strengthening exercises
- Balance and proprioceptive exercises

Goals
- Reduce inflammation and pain
- Protect surgical repair
- Full knee range of motion
- Normal gait pattern

Exercise progression
- Gait training
- Gym strengthening progression
- Initiate elliptical at 8 weeks
- Lunge progression at 12 weeks (retro, walk, split)
- Able to progress >90 degrees with loaded flexion at 12 weeks

Phase IV- Plyometric Training and Running Progression
Weeks 16 to 20:
- Administer Preliminary functional test at 16 weeks for MD to review
- Initiate straight line jogging at 16 weeks if proper biomechanics are demonstrated and symmetry on functional test
- Advance strengthening program
- Initiate plyometric training progressing from double leg to single leg activities

Goals
- No swelling
- Full range of motion
- Normal gait pattern
- Symmetrical strength and power

Exercise progression
- Proprioception drills
- Basic ladder series
- Linear jogging progression
- Basic plyometric box progression
- Gym strengthening progression

Phase V- Return to Sport
Weeks 20 to 24 weeks:
- Progress plyometric training to multi-plane, change of direction, and deceleration
- Advance strengthening program
- Administer Return To Sport functional test prior to 6 month follow up appointment with MD for physician to review

Goals
- No swelling
- Full range of motion
- Normal gait pattern
- Symmetrical strength and power

Exercise progression
- Advanced ladder series
- Change of direction with running and jumping
- Sport specific field/court drills
- Gym strengthening progression

Criteria to be released for return to sport
- Follow-up examination with the physician
- Pass Return To Sport functional test at >90% (involved vs. uninvolved limb)
- Display symmetry and confidence in high-speed cutting, multi-plane plyometric drills, sprinting and decelerating

Anticipated return to sport:
- 5-6 months for contact and non-contact athletes

Revised ***