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SPORTS MEDICINE SURGERY & HIP ARTHROSCOPY

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- Cutting edge information on the arthroscopic treatment of the hip, knee and shoulder -

REHABILITATION PROTOCOL

Quadricep/Patellar Tendon Repair

PHASE I - (WEEKS 0-4)

Goals:

- Protect healing tissue from load and shear forces
- Restore full passive knee extension
- Regain quadriceps control
- Decrease pain and effusion
- Focus on scar tissue modalities and patellar mobilizations

Brace:

- Hinged brace on and locked at 0° at all times
- Sleep in locked straight brace for 4 weeks

Weight Bearing:

- Protected weight bearing as tolerated with crutches

Range of Motion

- Locked at 0° x 4 weeks
- Achieve full extension

Strengthening Program:

- Quad/glute/hamstring sets and ankle pumps
- Begin gentle patellar inferior/superior and medial/lateral glides

Functional Activities:

- Gradual return to daily activities. If symptoms occur, reduce activities to reduce pain and inflammation
- Extended standing should be avoided
- Use caution with stair climbing

Swelling Control:

- Ice, elevation, compression, and edema modalities as needed to decrease swelling

PHASE II - (WEEKS 5-6)

Goals:

- Gradually increase ROM
- Gradually improve quadriceps strength/endurance
- Gradually increase functional activities

Brace:

- Unlock brace completely at 6 weeks
- Wean from brace by 8 weeks

Weight-Bearing:

- Discontinue crutches at 5 weeks, progress to weight-bearing as tolerated

Range of Motion:

- Gradually increase ROM 0-45° at week 4
- Maintain full passive knee extension
- Continue patellar mobilization and soft tissue mobilization, as needed
- Continue stretching program

Strengthening Exercises:

- Week 2-3: Hip abd/add, ankle pumps, 4way SLR with brace locked in ext., quad/ham sets
- Week 4:
 - Begin partial squat 0-45 degrees. OK to unlock brace for mini squats only
 - Initiate proprioception drills
- Week 5-6:
 - Initiate open chain knee extension AROM 90-30°
 - Initiate gravity resisted supine SLR flexion at 5 weeks
 - Multi-angle isometric knee extension

Functional Activities:

- As pain and swelling (symptoms) diminish, the patient may gradually increase functional activities
- Gradually increase standing and walking

PHASE III - (WEEKS 7-19)

Goals:

- Improve muscular strength and endurance
- Increase functional activities

Range of Motion:

- Week 7: 0-100°
- Week 8: 0-105°
- Week 9: 0-110°
- Week 10: 0-115°

- Week 12-19: 0-125°

Exercise Program:

- Heel raises, Fwd step-ups, partial squats/leg press/wall slides (0-60°), Fwd and lat lunges, hamstring curls within ROM restriction, balance and proprioception activities, stationary bike, LE stretches for quads, hams, calf, and IT band
- Weeks 12-19: Initiate forward step downs and posterior lunges

Functional Activities:

- As the patient improves, you may increase walking (distance, cadence, incline, etc.)
- Light running can be initiated toward end of phase based on physician evaluation

PHASE IV - (WEEKS 20-24)

Goals:

- Gradually return to full unrestricted functional activities

Exercises:

- Progress as tolerated with strengthening activities
- At 20 weeks post op, initiate plyometrics and light running program, and if appropriate, agility drills (lateral shuffle)

Testing:

- Final functional tests <25% deficit for non-athletes and <20% deficit for athletes