



INOVA[®]

Sports Medicine

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Physical Therapy Protocol Following Tibial Tubercle Osteotomy

Weight Bearing Status – **AS TOLERATED in brace locked in extension with crutches x 6 weeks**

Post-Op Week 0-6:

Goals:

1. Minimize swelling and pain
2. Protect soft tissue and tubercle fixation
3. CPM to 90⁰
4. Full active extension and 90⁰ of flexion

Exercises:

1. SLRs in all planes (use brace locked in extension)
2. Heel slides to 90⁰, calf pumps, quad sets
3. E-stim and biofeedback to regain quad function
4. Patellar mobs
5. Ankle ROM and resistive exercises with Theraband

Criteria before Phase 2: Quad control, 90⁰ of knee flexion, full extension

Post-Op Weeks 6-8:

Goals:

1. Increase ROM
2. Establish normal gait with unlocked brace
3. May discontinue crutches and brace when normal gait pattern and quad control is achieved

Exercises:

1. Progress to SLRs without brace
2. Mini-squats (0-45⁰)
3. Stationary bike (seat high, low tension)
4. Closed chain extension (leg press: 0-45⁰)
5. Pool walking/jogging
6. Toe raises
7. Hamstring and gastroc/soleus stretches
8. Proprioception:
 - Mini-tramp standing
 - Stable and unstable platform (BAPS) with eyes open and closed
 - Standing ball throwing and catching

Criteria before Phase 3: Normal gait, full ROM, sufficient strength and proprioception to initiate functional activities

Post-Op Weeks 8-12:

Goals:

1. Improve confidence in the knee
2. Protect patellofemoral joint
3. Progress with strength, power and proprioception

Exercises:

1. Continue with flexibility exercises
2. Hamstring curls
3. Mini-squats and leg press to 60°
4. Stairmaster, elliptical, cross-country ski machine, lap swimming
5. Stationary bike, increase resistance
6. Step-up, start with 2" and increase to 8"
7. Continue to work on proprioception and balance (lateral slide board, ball throwing)
8. Treadmill walking

Post-Op Weeks 12+:

Goals:

1. Return to unrestricted activity by 4-5 months

Exercises:

1. Progress with flexibility and strengthening program
2. Advance with closed chain exercises
3. Begin pool jogging and progress to running on land
4. Begin to incorporate cutting drills into agility training
5. Advance heights with plyometric conditioning
6. Sport specific drills (start on a 25% speed and advance as tolerated)

Criteria for release to sport(s):

1. Full ROM
2. Quad and hamstring strength 90% of contralateral side
3. No reactive effusion or instability with sport-specific drills
4. No patellofemoral symptoms