



INOVA[®]

Sports Medicine

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Physical Therapy Protocol Following High Tibial Osteotomy

Weight Bearing Status – **Non-Weight Bearing x 6 weeks with brace locked in extension, when not moving around brace can be unlocked from 0-90**

Post-Op Week 0-6:

Goals:

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

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
6. Calf and hamstring stretches

Criteria before Phase 2: Quad control, 90⁰ of knee flexion, full extension, good quad set, SLR without extension lag

Post-Op Weeks 6-8:

Goals:

1. Increase ROM and quad strength
2. Establish normal gait with unlocked brace
3. Begin 50% WB at 6 weeks with crutches
4. Initiate FWB at 8 weeks; may discontinue crutches with patient has good quad control

Exercises:

1. Progress to SLRs without brace when quad strength can prevent extension lag
2. Increase ROM (no limit)
3. Stationary bike (seat high, low tension)
4. Pool walking to establish a normal gait
5. Begin proprioception training:
 - **Mini-tramp standing
 - ** Standing ball throwing and catching

Criteria before Phase 3: Normal gait, ROM 0-100⁰, sufficient strength & proprioception to initiate functional activities

Post-Op Weeks 8-12:

Goals:

1. Improve confidence in the knee
2. 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

Criteria before Phase 4: Normal gait, sufficient strength & proprioception to progress to recreational activities

Post-Op Weeks 12+:

Goals:

1. Return to unrestricted activity by 5-6 months

Exercises:

1. Progress with flexibility and strengthening program
2. Advance with closed chain exercises
3. Begin pool jogging and progress to jogging 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
5. Normal gait