

PHYSICAL THERAPY

Tibiofemoral Microfracture Rehab Protocol

Weeks 1-6:

- HEP with ROM as tolerated
- Encourage ROM exercises daily
- NWB strictly using crutches or walker

Weeks 6-14:

- Supervised PT; 3x/ week (may need to adjust based on insurance)

GOALS:

- Restore full ROM
- Restore normal gait
- Demonstrate ability to ascend and descend 8 inch stairs with good leg control without pain
- Improve ADL endurance
- Independence in HEP

PRECAUTIONS:

- Avoid descending stairs reciprocally until adequate quad control and lower extremity alignment
- Avoid pain with therapeutic exercise and functional activities
- Avoid running and sports activities

TREATMENT STRATEGIES:

- Progressive WBAT as quad control allows (good quad set/ability to SLR without pain or lag). May use crutches/cane as needed
- Aquatic therapy if available – pool ambulation or underwater treadmill
- D/C crutches or cane when gait is non-antalgic
- AAROM exercises
- Patellar mobilization
- SLR's in all planes with resistance

- Proximal PRE's
- Neuromuscular training (bilateral to unilateral support)
- Balance apparatus, foam surface, perturbations
- Short crank stationary bike
- Standard stationary bike (when knee ROM > 115°)
- Leg press – bilateral/eccentric/unilateral progression
- Squat program (PRE) 0-60°
- Open chain quad isotonics (pain free arc of motion)
- Initiate step-up and step-down programs
- Stairmaster
- Retrograde treadmill ambulation
- Quad stretching Elliptical machine
- Forward Step-Down Test
- Upper extremity cardiovascular exercises as tolerated
- Cryotherapy
- Emphasize patient compliance to HEP

CRITERIA FOR ADVANCEMENT:

- ROM to WNL
- Ability to descend 8 inch stairs with good leg w/o pain
- Add water exercises if desired (and all incisions are closed and sutures out)

Weeks 14-22:

GOALS:

- Demonstrate ability to run pain-free
- Maximize strength and flexibility as to meet demands of ADL
- Hop test > 85% limb symmetry
- Lack of apprehension with sport specific movements
- Flexibility to accepted levels of sport performance
- Independence with gym program for maintenance and progression of therapeutic exercise program at discharge.

PRECAUTIONS:

- Avoid pain with therapeutic exercise and functional activities
- Avoid sports activities until adequate strength development

TREATMENT STRATEGIES:

- Progress squat program < 90° flexion
- Lunges

- Start forward running (treadmill) program at 4 months postop if 8 inch step down is satisfactory
- Continue LE strengthening and flexibility programs
- Agility program/sport specific (sports cord)
- Start plyometric program when strength base is sufficient
- Isotonic knee flexion/extension (pain and crepitus – free arc)
- Isokinetic training (fast to moderate to slow velocities)
- Functional testing (hop test)
- Isokinetic testing
- HEP

CRITERIA FOR DISCHARGE:

- Symptom free running and sport specific agility
- Hop test > 85% limb symmetry
- Isokinetic test > 85% limb symmetry
- Lack of apprehension with sport specific movements
- Flexibility to acceptable levels of sports performance

Independence with gym program for maintenance and progression of therapeutic exercise program at discharge