

## **Dr. Bercik Quadriceps Repair Protocol**

### General Considerations

- Weight-bearing status:
    - 0 - 2 weeks: NWB
    - 2+ weeks: WBAT; Hinged knee brace locked in extension for 8 weeks
  - ROM Limitations:
    - 0-2 weeks: Locked in full extension
    - 2-4 weeks: 0-30 degrees
    - 4-6 weeks: 0-60 degrees
    - 6-8 weeks: 0-90 degrees
    - 8+ weeks: Full
  - NO open-chain leg extensions for 8 weeks
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### 0 – 2 weeks: Wound rest

- Knee immobilizer at all times
- Ice and modalities to reduce pain and inflammation

### 2 – 4 weeks: Protect Repair & Maintain ROM

- Begin formal PT
  - Prone active flexion and passive extension - ROM to 30 degrees
  - Begin straight leg raises
- Submaximal quadriceps setting
- Weight bearing as tolerated once comfortable doing straight leg raises
- Continue inflammation control

### 4 – 6 weeks: Regain ROM

- Prone active flexion and passive extension - ROM to 60 degrees

### 6 - 8 weeks: Progressive ROM

- Prone active flexion and passive extension - ROM to 90 degrees
- Begin multi-plane straight leg raises and closed kinetic chain strengthening program focusing on quality VMO function
- Normalize gait pattern
- Begin stationary bike
- Initiate pool program

8 – 10 weeks:

- Wean out of brace
- Initiate open kinetic chain progressing to closed kinetic chain multi-plane hip strengthening
- Normalize gait pattern
- Restore full ROM
- Progress open and closed kinetic chain program from bilateral to unilateral
- Increased intensity on stationary bike
- Begin treadmill walking program forwards and backwards
- Begin elliptical

10 – 12 weeks:

- Expect full ROM
- Terminal quadriceps stretching
- Advance unilateral open and closed kinetic chain strengthening

12+ weeks:

- Advance open and closed kinetic chain strengthening
- Increase intensity on bike, treadmill and elliptical
- Increase difficulty and intensity on proprioception drills
- Begin gym strengthening – leg press, hamstring curls, abduction, and adduction exercises
  - Avoid knee extensions until week 16