

OPEN QUADRICEPS REPAIR

REHAB PROTOCOL | CATHERINE A. LOGAN, MD, MBA, MSPT
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RESTRICTIONS:

WEIGHT BEARING

0-2 weeks: TDWB
2-4 weeks: PWB/50%
4+ weeks: WBAT

BRACE SETTINGS:

Hinged brace, see setting progression in protocol

ROM:

0-2 weeks:
2-4 weeks:
4-6 weeks:
6+ weeks:

Do **NOT** rest with a pillow under your knee

QUICK TIPS

The use of ice and compression reduces need for narcotics post-op

Early emphasis on full passive extension & gentle patellar mobility

EARLY RECOVERY STAGE: WEEK 0 TO 2

GOAL

+ Protect surgical repair. Begin PT 3-5 days after surgery. PT 2-3 visits.

MOTION

+ 0 to _____ degrees passive only

THERAPEUTIC EXERCISE

+ Ankle pumps, isometric quad sets, glute sets

CARDIOVASCULAR EXERCISE

+ Upper body ergometer, upper body circuit training

OTHER

+ Brace locked in extension for ambulation, sleep and all activity. Off only for bathing and PT exercises. Crutches with all ambulatory activities.

+ Keep incision and sutures dry.

+ Ice/compression, edema control

2-WEEK MD FOLLOW-UP @ DR. LOGAN'S CLINIC

STAGE II: WEEK 2 TO 4

GOAL

+ Protect surgical repair. PT 2 times per week.

MOTION

+ 0 to _____ degrees passive only

+ Gentle patellar mobilizations, knee extension ROM with foot resting on towel roll

THERAPEUTIC EXERCISE

+ Heel slides on towel 0 to _____ degrees (**No** active Quad, use Hamstrings), quad sets, 4-way standing leg lifts with brace LOCKED in extension with UE support

CARDIOVASCULAR EXERCISE

+ Upper body ergometer, upper body circuit training

OTHER

+ Brace locked in extension for ambulation, sleep and all activity. Off only for bathing and PT exercises. Crutches with all ambulatory activities.

+ Keep incision and sutures dry.

+ Ice/compression, edema control

STAGE III: WEEK 4 TO 6

GOAL

+ Gait training and protect surgical repair. Wean crutches. PT 2 times per week.

MOTION

+ 0 to _____ degrees passive only

+ Gentle patellar mobilizations, knee extension ROM with foot resting on towel roll

THERAPEUTIC EXERCISE

+ Continue heel slides on towel 0 to _____ degree (**No** active quad, use hamstrings), quad sets, 4-way standing leg lifts with brace LOCKED in extension with UE support

+ Begin weight shifting on the surgical side with brace LOCKED in extension.

CARDIOVASCULAR EXERCISE

+ Upper body ergometer, upper body circuit training

OTHER

+ Brace locked in extension for ambulation, sleep and all activity. Off only for bathing and PT exercises.

6-WEEK MD FOLLOW-UP @ DR. LOGAN'S CLINIC

STAGE IV: WEEK 6 TO 12

GOAL

+ Normalize gait, protect surgical repair. PT 1 to 2 times per week.

MOTION

+ Continue patellar mobilizations

+ Flexion 0 to 90 degrees to begin at 6 weeks (active HS ok; No active quadriceps knee extension). **Progress 10 degrees of flexion every 2-weeks.**

+ Graduated progression to WBing with knee flexion

+ **Avoid** weight bearing knee flexion past 40 degrees (no deep squats).

THERAPEUTIC EXERCISE

+ Closed chain quadriceps control 0 to 40 degrees (light squats), progress to shallow lunge steps, prone active knee flexion, continue open chain hip strengthening, core strengthening.

CARDIOVASCULAR EXERCISE

+ Continue: upper body ergometer, upper body circuit training

+ Begin: comfortable stationary bike **without** resistance

OTHER

+ Brace opened to 30 degrees for ambulation, sleep and all activity. Off only for bathing and PT exercises.

**3-MONTH MD FOLLOW-UP @ DR. LOGAN'S CLINIC
WITH EXERCISE TESTING**

WEEKS 6-12:

Normalize gait on level surfaces with brace opened to 30 degrees

FOLLOW UP:

2 weeks

6 weeks

3 months*

4 months*

6 months*

WEEKS 12 TO 16:

Assess for patient specific muscle imbalances.

Focus on neuromuscular control in multiple plans (non-impact) without pain or swelling.

RETURN TO SPORT:

Return to sport should not occur until testing indicates 85% or greater results compared to uninjured leg

Exercise testing to be performed at Dr. Logan's office at 3, 4, & 6 months.

*Please wear athletic clothes and shoes for exercise testing

STAGE IV: WEEK 12 TO 16

GOAL

+ Normalize gait without brace, full motion, SLR without lag. PT 1 time per week.

MOTION

+ Full ROM – stretching maintenance program

THERAPEUTIC EXERCISE

+ Continue: closed chain quadriceps strengthening (increase to 0 to 70 deg), prone active knee flexion, open chain hip strengthening, core strengthening.

+ Begin: Non-impact balance and proprioceptive drills.

CARDIOVASCULAR EXERCISE

+ Upper body ergometer, upper body circuit training, stationary bike

OTHER

+ Brace weaned gradually during this stage

+ Avoid forceful eccentric contractions

+ No impact activities

**4-MONTH MD FOLLOW-UP @ DR. LOGAN'S CLINIC
WITH EXERCISE TESTING**

STAGE IV: WEEK 16 +

GOAL

+ Good neuromuscular control with sport, including impact. PT every 1 to 2 weeks.

MOTION

+ Full ROM – stretching maintenance program

THERAPEUTIC EXERCISE

+ Impact and movement control exercises; begin with low velocity, single plane and progress complexity to higher velocity, multi-plane activities.

+ Sports specific balance and proprioceptive drills. (Assess for imbalances throughout.)

CARDIOVASCULAR EXERCISE

+ Upper body ergometer, upper body circuit training, bike, elliptical

OTHER

+ Post-activity soreness should resolve within 24-36 hours.

+ Ensure proper mechanics with sport / work activities.

**6-MONTH MD FOLLOW-UP @ DR. LOGAN'S CLINIC
WITH FINAL EXERCISE TESTING**